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The China Medical Missionary Journal.

VOL. XVII.

JANUARY, 1903.

No. 1.

Original Communications.

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THE OPIUM HABIT.*

By P. L. McALL, B.A., M.B.

The opium habit or its modern development morphinomania has been said to be "of all our luxuries the surest destroyer of health and prosperity, position and life." The subject therefore comes before us as members of a medical missionary association in a double aspect—physical and moral. Let us first consider some points bearing on the *moral side* of the question. No doubt the effects of the habit in China and civilized countries are different, and as our work lies out here, it may be well to limit ourselves to the practice as we see it here. Personally, beyond finding out that an opium smoking Chinaman is even more ready to tell lies than his fellow-countrymen, I have with my own eyes seen very little of the moral evils that according to reliable evidence follow the habit. But from what I have heard from Chinamen and others, the moral effects concern not only the victim himself but involve to a deplorable extent the members of his family, too. On such points the experience of a missionary who lives in close contact with the natives and knows their family lives—be he a medical man or not—is the best guide we can get as to the nature of the evil. Comparatively few missionaries, and still less other foreigners, are in a position to see for themselves the full effect of the habit on the family life of China. There is, however, plenty of evidence to show that in many cases where the victim cannot otherwise find money to buy opium with he will sell the members of his family, so that a man so far

*The abstract of a paper read before the Hankow Medical Missionary Association in April, 1902.

from working to obtain the necessities of life for his wife and children, will actually sell them to provide himself with more of the drug that has ruined him. Among the well-to-do it may be that the moral effect is chiefly focussed on the victim himself; and as in any case the victim who comes before us as medical men will be loath to tell of the evils that have come on his family through his indulgence in opium, I should be inclined to think that the more the truth comes to light, the more terrible shall we find the actual state of affairs to be. We should regard the positive evidence as to the harmfulness of the habit as nearer the truth, and bear in mind that negative evidence is very likely to be incomplete.

Leaving, however, the moral side of the question, let us look now at the *physical side*. This branch of the subject is capable of many sub-divisions, and any complete discussion of it should include notes on the relative prevalence of the habit in the different provinces of China, the ratio of men and women practising the habit, the age when the habit is begun and why it is begun, the various preparations of the drug in use among the Chinese, the methods of taking it into the system and their relative effects, the action of the drug and the clinical phenomena, the reasons why people wish to break off the habit, cases suitable for breaking off the habit, methods of breaking it off, and lastly the permanence or otherwise of the cures.

About the relative prevalence of the habit in different parts of China there is no doubt that in some places the evil is far greater than in others (*e.g.*, in Hankow there are said to be only 600 dens, while in Chungking the number is put at over 10,000). But I have no figures to give for other places, and can only hope that others may know more about this point. So far as I have seen, men of all classes may become opium habitués, while among women I have chiefly seen and heard of the habit among the upper classes.

Commencement of the Habit.—Opium smokers seem to begin the habit at any age and from almost any cause. One meets with young men under twenty who smoke several drachms per day; such have often begun from fun or because of a friend who does so (*cf.* cigarette-smoking amongst young England). Others begin because of some ailment, very commonly indigestion or phthisis, sometimes because of chronic rheumatism or because a native doctor has ordered it for dysentery. Such usually begin the habit in middle life. Again we find mental troubles, such as the worries of family or official life, cause others to begin late in life.

The Preparations of the Drug used by the Chinese.—There are, to put it briefly, the opium grown in India or China on the one hand, and on the other the alkaloid morphine imported from abroad or prepared in places like Shanghai. Of opium there are several varieties in use, of which the chief are the Indian or Canton opium, the Yun-nan, Shensi, and Szech'uan. The price of these varies from about 730 cash per Chinese ounce for the Cantonese to half this



OVARIAN TUMOR, CYSTIC.

sum for the Szch'uan variety, and the strength of the article seems to be proportionate. We may briefly sum up the process of preparation by saying that the crude article is boiled and filtered to make a treacly mass, the price of which is about thirty per cent. more than for the crude opium, and runs from about 1,000 cash per ounce for the Cantonese to some 500 for the Szch'uan. This treacly mass is often adulterated with substances such as the unfiltered refuse from the above process, boiled sesame or the glue-like substance got from boiling pieces of ox hide. After the opium is burnt, some sixty per cent. of it remains in the pipe as ashes, and these ashes are often re-smoked by being mixed with more of the treacly prepared opium or in other cases are mixed with water and drunk (cf. the case of an American who used to mix the ashes with water and inject them subcutaneously). There is another form in which *morphia* is now consumed in China, namely in tabloids and injections. This practice is said to be steadily on the increase. The full Customs' Report for 1901 is not yet to hand, and it is hardly fair to compare an abnormal year like 1900 with 1899, for the imports for the year were greatly reduced by the general disturbances through China and the consequent depression of trade. A comparison, however, of the returns for the last decade, warrants the assertion that the native opium is slowly ousting the foreign kind; thus in 1891 some seventy-seven thousand piculs were imported, while in 1899 some fifty-nine thousand piculs came into the country. For the port of Hankow the returns for 1901 have been printed, and show that the amount of Indian opium imported is steadily decreasing; thus: in 1892, the import of Indian opium to Hankow, was 747 piculs; in 1895, 579 piculs; in 1898, 465 piculs; in 1901, 276 piculs.

With regard to the methods by which these various preparations are consumed, we will first take up *opium smoking*, by which a man, according to his taste or the time at his disposal, will burn some three to ten grains of the treacly mass and inhale the sublimed products through his pipe. This method is too slow if the daily amount consumed is very large, and is too expensive if the victim has much difficulty in finding the money. Accordingly we find that several resort to the method of *swallowing opium*; it is quicker, and a smaller amount is required to produce the desired effect. Opium smokers are said to prefer the Chinese opium (which has only three to seven per cent. of *morphia* in it) rather than the stronger Indian kind. The smoker inhales the sublimed products of the opium, but the amount of *morphia* which enters his system by this method is small. According to scientific calculations it would appear that more than half the *morphia* in the charge is not consumed at all; of the remainder a considerable part is sublimed about the pipe itself, leaving perhaps one-quarter or one-fifth to enter the system. This then enters by the respiratory tract, which may not be so absorptive as the alimentary. From the statements of patients I have found that they think one part of opium swallowed by the mouth has about the

same effect as smoking six or seven parts through the pipe. With regard to the *hypodermic injection of morphia*, this is apparently on the increase, especially in and round the treaty ports. One victim accustomed to take the drug in this way said it was much cheaper than smoking, and gave him the same satisfaction. For a time it was common in Hongkong, but the authorities, growing alarmed at its spread, made the practice illegal. The great disadvantage of the injection method is the abscesses and ulcers to which it gives rise. More alarming still is the effect reported in cases where it has been accidentally injected into a vein, for there occur profuse sweating, violent twisting headache, dilated staring pupils, marked depression of the cardiac and respiratory functions, a train of symptoms contrasting vividly with the ordinary effect of *morphia*. The relative effects of *morphia* taken by the different methods would seem to be—one part by injection is equal to one and a quarter swallowed or seven and a half smoked.

With regard to the *maximum amount taken per day* the worst case I have heard of was a man who some years ago was in our hospital at Hankow and who swallowed every day five drachms of the drug. But this does not come near the amount that De Quincey took, nor the fifty or sixty grains of *morphia* that modern morphinists have been known to inject.

We now come to the *action of the drug* and the clinical phenomena observed in patients taking *morphia*. With morphinism or the opium habit we have for the most part the effects of frequently repeated doses of *morphia*; the doses being, as a rule, gradually increased, because toleration of the drug soon comes on and the original dose soon fails to produce the original effect. Instances, however, are on record of a small dose being taken for a number of years with no increase and very little damage to health. At first the symptoms of the chronic habit are chiefly mental and moral, shown by dilatoriness and inability to do work until the craving is satisfied. Later the victim's face becomes sallow, loss of appetite, indigestion and emaciation follow, moral and physical degradation comes on, the powers of the mind are blotted out, and finally the victim's capacity, even for fitful work, disappears; the periods of excitement consequent on taking the drug become briefer and briefer, and in late middle life, if not earlier, he is carried off by some intercurrent malady. To go more into details, it must not be supposed that the effect on the system of repeated doses is altogether the same as the repetition of the effect of the original dose. At first there is a diminution of every secretion of the body, except the urine and saliva; but when once the habit is established, the system seems in some way to get over this and the normal bodily secretions are not markedly reduced. The effect of each dose is to produce a period of excitement shown in the stimulation of physical and mental energy; this is followed by a period of calmness and inaction, ending in lethargy, and again the craving for a fresh dose comes on. Heart, brain, the digestive tract

and the motor powers alike refuse to do their work comfortably without it. A theory has been advanced which to some extent will explain the increasing doses necessary, namely that when *morphia* is taken into the system, a sort of antidote to it is produced by the reaction of the tissues to the drug, and if all this antidote be not first eliminated a correspondingly larger dose is required to produce the original effect. A noteworthy fact is that the absorptive power of the intestinal tract is greatly reduced; this leads on the one hand to emaciation and on the other brings it about that large quantities of certain drugs (*e. g.*, *bichloride of mercury*) produce no effect while the action of other drugs is rendered very uncertain. Another marked result of the habit is the disturbance of sleep that comes on; the victim being unable to get any rest unless he first partake of the drug. There is a common idea among the Chinese that dysentery or diarrhoea occurring in an opium smoker are very difficult to tackle, and one's small experience in such cases bears this out. Albuminuria is also not infrequently found and is often fatal. I can find no record of a *post mortem* examination of a chronic opium smoker, and should be very glad to hear if any pathological lesions are to be found.

About the *Detection of the Habit*.—When *morphia* is injected the marks of the needle, the ulcers, and abscesses resulting, give a clue to what is going on. An analysis of the urine will show the presence of *morphia* if the amount entering the system exceeds two grains per day. Periods of excitement with small pupils are suggestive. Isolation followed by discomfort, terminating in a delirium that is at once relieved by *morphia* is conclusive.

Let us now consider *why the habit is broken off*. I think the commonest reason is because the expense of it is getting beyond the victim's financial resources. Take a man smoking six drachms per day; this will cost him 250 to 350 cash, and on such a sum he could feed four or five people. Some only intend to reduce the amount and begin again at a cheaper rate. Others come at the instigation of friends with no fixed purpose of their own and form a very unpromising class to tackle. Some come because they wish to enter on a post from which they are debarred by opium smoking. Some few come because they realize the thing in itself is evil, and wish to break away from what has ruined so many others.

Let us now think of what *cases are suitable for breaking off the habit*. It is easier, however, to mention cases that are not suitable, and among them we must put patients suffering from chronic diarrhoea, albuminuria, or any advanced disease, such as cancer, phthisis, and cardiac failure. Further, those who come, brought by others, have seldom the determination necessary to break off the habit.

As regards the *methods of breaking off of the habit*. I have met with a few patients coming for other ailments who say that they used to smoke opium, but now do not; they say they gradually broke it off at home, and this may be true. Many are allured by special pills which stop the craving, but of course

only do so by supplying the desired drug in an unknown form. Some (probably very few) are able by their unaided will power suddenly to break off the habit. As a general rule the help of a doctor is necessary, and treatment should not be carried on in the patient's own home but in a hospital. He should be carefully searched on admission and not allowed to go out during the process of cure; any friends who may come to see him should only be allowed to do so in the presence of a reliable attendant. These precautions are necessary, because the tendency to deceive is so exaggerated in the victim that while voluntarily coming under treatment to break off the habit he will often contrive to get the drug by stealth, as Coleridge did. Some few cases have still enough moral back-bone left to make no attempt to deceive the doctor in charge, appreciating the fact that if they deceive him, their chances of cure are reduced.

Coming then to the actual treatment, we will first consider *cases where another ailment is present*. Minor surgical operations may be safely tackled in patients who do not take large amounts, especially if it is decided to break them off gradually. Major operations should be preferably tackled separately, either before or after the opium habit has been dealt with, more especially does this apply to cases where the sudden break off is going to be tried, for the patient will probably need all his strength to free the conditions one at a time. Very annoying are cases of rheumatism or lumbago where the opium kept the pain in check and where now that the opium is reduced the original pain returns. It must further be remembered that many patients coming to us after meeting with an accident are opium smokers, so that if the fact is early recognized and appreciated they will stand a better chance. For sometimes they can be cured of the opium habit almost without knowing it, while their attention is monopolised by the results of their accident; in other cases opium must be continued if they are to pull through at all.

There are two chief *methods of withdrawing the drug—the sudden and the gradual*. The former may be tried in healthy patients under thirty-five who do not take more than five grains of *morphia* per day or who do not smoke more than one ounce of opium. There will be of course tremendous discomfort, but very little actual danger to life; one advantage claimed for such treatment is that patients thus treated are very loath to return to a drug it has cost them so much to break free from. But on the other hand, if the patient should slip back again into the habit, he will not be very ready to put himself under such treatment again, nor will others who hear of his sufferings be tempted to come; further, the patient is physically unable to give an attentive hearing to the gospel, and is therefore less likely to leave the hospital with a knowledge of the truth that will help him to stand firm in the future. And yet another disadvantage is this, that it puts a tremendous strain on the

nursing staff, for such patients will do anything to get outside and obtain more of the drug they want. Those who make use of the sudden method make a special effort to keep the patient under the influence of drugs that will deaden his sensations and treat special symptoms as they arise. Others put the patient markedly under the influence of alcohol for some days; the object being as before to deaden sensibility until the system has got into the way of doing without the opium. Under the sudden method it is nevertheless sometimes wise to tide the patient over a critical time with small doses of the forbidden drug. The *symptoms that follow when the habit is suddenly interrupted* are not difficult to understand, for they are very nearly the exact reverse of a dose of *morphia*. This may be explained by supposing that the system having for a long time been accustomed to the drug, has contrived by various means to counteract its action. The counteracting efforts are very successful and become such a settled habit that when the drug is stopped they continue and show themselves in a marked degree; the system being unable to readjust the balance immediately. And inasmuch as the victim has developed the power to pour forth gastric and intestinal secretion in spite of opium, he now suffers from a tremendous increase of these secretions, and vomiting and diarrhoea result. Further, he has learnt to keep awake, in spite of his habitual dose of opium, and now that his opium is withdrawn, he suffers from most distressing sleeplessness. Polyuria and bronchorrhoea are often present. Rheumatic pains in the limbs and in the small of the back trouble him greatly. In bad cases there is marked cardiac depression; the pulse getting as low as forty beats per minute. Of these symptoms the most serious are the vomiting and diarrhoea, the sleeplessness which may, if unrelieved, pass into delirium, and the failure of the circulation. These symptoms are met by tonics, carminatives, and astringents; big doses of *sedatives* are of service; hot applications to the stomach often greatly relieve the vomiting and diarrhoea; digitalis is of service for the heart failure, and recently large draughts of a dilute solution of *soda bicarb.* have proved efficacious in relieving the muscular pains (see below).

In the *gradual method* the system has more time given to adjust the balance of affairs and to desist from attempting to counteract the *morphia*. The secretory and cerebral functions of the patient are allowed gradually to return to their normal condition. The methods of supplying the patient with *diminishing doses of the drug* are very many. *Morphia* can be injected hypodermically or some of the various preparations of opium or *morphia* can be given by the mouth. Nor is it difficult to calculate the amount of any particular preparation required to replace the *morphia* a patient has been taking. Thus suppose a man smokes six drachms of Szch'uan opium per day, this is equal to swallowing about one drachm. Now in the Szch'uan opium there is say some five per cent. of *morphia*, so that in one drachm there

will be three grains. In the British Pharmacopœia the preparation called *liq. morph. hydrochlor.* is of the strength of one in 100, so that 300 minims or five drachms of this preparation will contain three grains of *morphia*. Hence it follows that the six drachms of Szech'uan opium smoked, will be equalled in effect by five drachms of *liq. morph. hydrochlor.* taken internally, or one drachm of this opium by fifty minims of the solution. As a matter of practice it is rarely necessary to give the full equivalent; forty minims or even thirty answer all right in ordinary cases. The exceptional cases are those where the amount of opium smoked per day is comparatively small and when the habit is of a great many years' standing. In such cases it is well to begin to start the reduction from very near the full equivalent. The amount of the right daily dose having thus been calculated, the effect of the initial reduction must be carefully watched, and if there is no marked malaise, no vomiting or diarrhoea the following day, there may be a further reduction made of about one-eighth. In ordinary cases where the patient has been in the habit of smoking not more than four to six drachms per day, the following plan, which cuts off the drug gradually in twelve days, may be tried. It is very simple, as all the *morphia* containing medicine is dispensed for each patient when he first comes in, and does not require to be measured out afresh every day. Calculate the equivalent amount of *morphia* for the first day, multiply by six, make it up to twelve ounces with some flavouring agent such as *quassia* and water, and give the bottle to an assistant with instructions to keep it under lock and key. Direct him to give the patient two ounces per day in divided doses, and every evening, when the daily amount is consumed, tell him to add one ounce of pure water. Thus the medicine is reduced by one ounce per day, and is at the same time steadily diluted, so that at the end of twelve days the bottle is empty and on the eleventh day the amount of *morphia* given was extremely small. This method is very useful where there are a number of opium patients in at a time, for it saves a great deal of measuring and calculating every day. Or it may be preferred in some individual case to carefully order each day's reduction as symptoms require, and the following figures will show about the rate at which one may proceed. Taking again *liq. morph. hydrochlor.* as the medicine to be used; if the daily dose is between dr. v. and dr. iii., reduce by half a drachm per day; when between dr. iii. and dr. ii., come down by twenty minims per day; when between dr. ii. and dr. i., come down by fifteen minims per day; under dr. i., come down by ten minims. By this plan we get the following figures:—

Amount of opium smoked per day ...	dr. viii.	dr. vi.	dr. iv.	dr. ii.
Cost of ditto (English money) ...	1s.	9d.	6d.	3d.
Initial dose of <i>liq. morph. hydrochl.</i> ...	dr. v.	dr. iii. m. 45	dr. ii½	m. 75
Total amount of ditto (circa.) ...	dr. xxxv.	dr. xx.	dr. xiii.	dr. iv½.
Total cost of ditto ...	10d.	6d.	4d.	1½d.
Number of days taking ditto ...	17	14	11	7

From which it is clear that the expense of providing them with sufficient *liq. morph. hydrochlor.* to break off the habit is less than the sum the patient spends for a single day's opium smoking. It is often possible to reduce the dose faster than indicated above, but it may sometimes be necessary not to go so fast. The effects must be watched in each case, and if nausea or anorexia occur, much more if there is vomiting or diarrhœa, the reduction must proceed more slowly. But beside giving the actual drug itself there are other drugs which prove most useful, and they lie in the direction of hypnotics and drugs which act on the gastro intestinal secretion. At first the patient is almost sure to complain of *sleeplessness*, and to meet this, *choral bromides* or *cannabis indica* should be given; trional in doses of thirty or forty grains is highly spoken of. If hypnotics are used they should be steadily reduced till finally none are needed at all. Still more important is the plentiful use of alkalies to neutralize the *hyperacidity* of the gastro intestinal secretion. One plan that has met with considerable success is to give the patients large draughts of a one-third per cent. solution of *soda bicarbonate*. Another way, the good effect of which I have seen, is to give some such powder as the follow, ing three or four times a day:—*sod. bicarb.*, twenty grains; *pulv. rhei*, grains three; *zingiber*, grains ten; *pulv. nux vomic.*, grain one, to which one may add *pulv. digitalis*, grain half if any circulatory weakness be discovered. Another advantage of the alkalies is that they seem in some way to check the lumbago and distressing aching pains of which many complain. Some such daily programme as the following answers well*: 8 a.m., one powder as above; 11 a.m., half the daily dose of the medicine containing the *morphia*; 2 p.m., another powder; 5 p.m., the other half of the *morphia* medicine; 8 p.m., another powder, and later at night, a sleeping draught if necessary. When after the lapse of some days the patient has ceased to take the reduced doses of *morphia*, he should be kept at the hospital for another week, during which time a vigorous tonic treatment is indicated, such as *quinine*, *strychnine*, and *arsenic*. Two other drugs should be mentioned which have been found of service by recent writers—one is *spartein*, and the other *atropine*. The latter reduces the profuse secretions and can be commenced with a dose of 1/300 of a grain. One *complication* needs to be specially mentioned; this is *diarrhœa*. The occurrence of diarrhœa is usually due to a too rapid reduction of the *morphia*, and the first indication for treatment is therefore to reduce the drug less rapidly. It is a good plan to give *castor oil*, increase the *soda bicarb* and follow by astringents like *catechu kino* and *lead acetate*; if these fail, though given in big doses, one may try, as a last resource, pills of lead and opium. As regards *diet*, plenty of milk and other light nutritious foods are well borne and of great service.

*This scheme is based on a plan devised, I think, by Dr. Edwards, of Tai-yuen-fu

The question of *recurrence* after breaking off the habit is often asked by outsiders in the form of, "Are your cures permanent?" or, "Do your opium patients go back to their opium again?" It is well nigh impossible to give any figures on this point. In some cases we are able to hear of patients afterwards and learn that they have not returned to the habit. Others, however, come back repeatedly to be cured as it were *pro temp.*, and there is a certain amount of disappointment in finding out that though they left us before, apparently cured, some companion or slight trouble has been too much for them, and they now indulge in the vice as of old. We must not, however, give up hope, nor forget the great classical instance of De Quincey, who took *morphia* for fifty-two years; at one time consuming as much 8,000 drops of *laudanum* per day, and after breaking it off four times, finally gave it up altogether.

But above all let us bear in mind that more important still it is to use every effort to get the opium smoker to put his trust in Christ. For whatever method be adopted of breaking off the habit, when once the patient gets outside the hospital, he will be tempted to indulge in the vice again, and nothing is of such avail as the power of Christ to make the cure permanent and prevent the old opium habitué from falling back into the habit again.

N.B.—In the preparation of this paper the works chiefly consulted were articles in Clifford Albutt's "System of Medicine" and in the *Encyclopedia Medica*. The author regrets he has not been able to consult Dr. Jennings's recently published book; he hopes it will soon be reviewed in the *JOURNAL*.

NOTES ON SOME CASES IN CHANG-TEH, HUNAN.

By O. T. LOGAN, M.D.

Case I.—A man, to spite a creditor, cut his throat through the crico-thyroid membrane, severing the wind pipe completely and all but cutting into the *œsophagus*. He was willing and anxious to have me treat him, but would not come to our place. The wound, which was gaping about two inches, was united by deep and superficial sutures around a tracheotomy tube. A better way would have been to have performed a tracheotomy and closed the wound tightly, but I knew that the family would not permit this, so I did not suggest such a course. Some of the stitches pulled out, and this, together with the action of the tube, prevented good approximation of the upper and lower sections. Eventually the wound narrowed down to the space occupied by the tube, but the larynx seemed determined to close up completely. Silver bulbs, made to fit the lumen of the larynx, were passed through the wound from below upward and left in place. A small collar prevented these bulbs from slipping upward, while they were supported from below by the tracheo-

tomy tube. The patient made a good recovery from the operation, and has remained robust ever since. At present he introduces the tube and silver bulb himself. When the tube is removed and the opening in the neck closed, he can expirate freely, but inspiration is difficult. I have received an intubation set now, and I hope, with God's blessing, that by inserting a tube for some weeks the outer wound can be made to close and at the same time a free passage for air be established. One of my authorities advises the tight closing such wounds and the expectation of primary union. Such a procedure could not be carried out unless the patient were within easy call of a skilled attendant.

Case II.—A man formerly an accountant, but reduced to a beggar on account of a dense opacity of the cornea. There was a small clear spot in the cornea at the outer side. I tried to dilate the pupil, but could not, even with strong solutions of *atropine sulph.* The patient said he could see the sun as a "yellow cake." After weeks of treatment of the trachomatous lids, upon the patient's importunity, operation was agreed upon, a gloomy prognosis being given. Our light was miserable and the condensing lens worse, the iris was adherent, but after four "bites" of the forceps enough of the iris was pulled away to give a small optical pupil. I had little hope of any improvement in vision, but was rejoiced to see the patient discard his cane and become able to recognize large and later small characters. This case illustrates what can sometimes be done with a very unpromising case by one comparatively inexperienced in eye operations; the prayer factor being present.

Case III.—Mr. D., a watchman *en route* to the Kuei-cheo quicksilver mines, came to us with typhoid of moderate grade. The second day he had a hemorrhage, but it did not pull him down to any great extent. The sixth day his pulse went down rapidly and the body was drenched with perspiration. Hemorrhage was thought to have taken place, and large doses of *tr. opii* with *plumb. acetat* were given. In spite of this, watery stools appeared about four hours afterward, but no blood. Later the characteristic "rice water" stools appeared, and we knew we had cholera in addition to typhoid. A large subcutaneous saline infusion brought the pulse back, the skin became warm, and for a single day we had hope of recovery, but the patient gradually became delirious and passed away after his sturdy body had made a hard twelve-hour fight with the last enemy.

(It seems to me, from my observation of cholera this summer, that "rice soup stools" describes the appearance of the evacuations of cholera better than the classical term used in all text books. What say the brethren?)

Mrs. Logan contracted cholera three days after Mr. D. died, but she did not reach the cold stage, thanks to God's grace and early, vigorous treatment. (My fault in treatment has been that I did not push the opium fast enough in the early stage. I find that patients in the beginning stand numerous doses of opium frequently repeated. I think enemata of *tannic acid*, one or two per

cent., with or without *starch* or *mucilage acacia*, are useful. In the cold stage the saline infusion has given best results, combined with stimulants.)

Case IV.—A child nineteen months old, daughter of Mr. S., of the Finnish Lutheran Mission. The child was noticed to stumble as she walked for a few days, after which she refused to stand, and cried when she was being dressed. There were no signs of joint nor spinal trouble, and the case was supposed to be one of slight traumatism caused by a fall. After about a month with no improvement—no amount of persuasion could induce the child to walk—the case was looked into more carefully. The mother suggested rachitis, as there was a family history of this disease, but not a sign nor symptom could be made out. For a time I was at a loss to know what to call the disease, but in reading that, to my mind, matchless authority on children's diseases, Holt, I found that he described a typical case of scorbutis, with symptoms pointing only to the joints, which matched our case. The food was changed—the child had been fed upon Mellin's Food and canned milk, apparently doing well upon it—a liberal diet allowed, including orange juice. Within a week the child ceased crying when being dressed, and in another week she began to walk. I neglected to state that she took *sod. salicylate* for about two weeks before a diagnosis of rachitis was made. I think the case is interesting, because this disease in the child is seldom mentioned in medical literature; it is also unique in this respect that there was no tendency of the gums to bleed, nor were the joints swollen or ecchymosed.

Case V.—Farm laborer, age forty, presented a very anæmic appearance, complaining of shortness of breath and pain in the epigastrium. Examination revealed very loud harsh murmur over the vessels of the neck. Blood examination showed no poikilocytosis. Hæmoglobin, thirty per cent.; eosinophiles, twenty-five per cent. The feces appeared normal, no blood being present microscopically. The microscope revealed numerous light grey bodies which, upon using higher power—one-fifth objective—proved to be the ova of the ankylostomum duodenale. Three twenty-grain doses of *thymol*, followed by *castor oil*, brought away dozens of the interesting little worms; the females being far more abundant. I put aside in a covered dish containing a little water, some of the fecal matter. In twelve hours the worms could be seen moving within the shell, and in another day many had hatched out and were moving around very rapidly. I observed the process daily for several days and counted dozens of the little wrigglers, but among these not a single male was found.

Case VI.—Retention of urine. A soft gum catheter was passed and a large amount of urine drawn off. Upon withdrawing catheter, a "mulberry" stone caught in the eye and was withdrawn with the catheter. This stone had ruptured the urethra and caused extravasation of urine into the scrotum. The third time we attempted to catheterize we failed. An operation had to

be done. With a large trocar and canula a puncture was made just above the symphysis pubis. The trocar was withdrawn, but the canula left in until the urine drained off, when a soft rubber catheter was inserted inside the canula, which was withdrawn, leaving the catheter in place; a safety pin preventing its going in too far. This catheter was left in place until the urethral route was fully open, when it was withdrawn and the small opening covered with antiseptic gauze held in place by adhesive plaster. The patient made an uneventful recovery, except that he contracted typhoid just when he was about ready to leave his bed.

Perhaps I have written too much already, but I think there has never been a report of cases from Chang-teh before, and we came here in December, 1898, so I will ask a little indulgence. There are two practical things we have found out here that have been of great service. One is that native cotton can be made absorbent and sterile if it is laid in thin layers and tacked, as the ladies say, between two layers of cloth, then boiled with *carbonate of soda* or green soap, which is rinsed out later. After this the excess of water is wrung out, preferably by a clothes wringer, and the cotton dried. This cotton is almost all one could wish for dispensary work. The other point is that the Chinese "shih kao" (石膏) is gypsum which, when heated, loses its water of crystallization and becomes plaster of paris. If pulverized fine enough it makes splendid splints, used as our plaster is used in the home land. My good wife, who is a trained nurse, should have the credit for the cotton discovery, as well as for many other things in connection with our work. I must say a good word for our microscope. Mrs. L. will not wonder at being spoken of in the same line with the splendid instrument, for she often declares I give it time that belongs to her. It has helped me many, many times. I now know whether a given fever is malaria or not, and can also tell whether another fever is due to typhoid or some hidden inflammation. I have seen people poisoned with *quinine*, grains xl.-lxxx. *per diem*, *ad infinitum*, when they had typhoid. A microscope would have prevented such mistreatment. Our children and others do not have to suffer the effects of *santonin* unless the ova of the lumbricoid is found in the stools. We older people do not need to keep our ears buzzing with *quinine* every time we feel "malarious" as we did until we were furnished with a microscope. I am sure that in a few years it will more than pay for itself in *quinine* that was formerly worse than wasted. By the way, good microscopes are cheap now and missionaries are given export prices by at least one first class American firm; this amounted in our purchase to thirty-two and half per cent. reduction.

I should like to hear from our brethren in different parts of China what kinds of malaria are found; microscopic evidence only being taken. Here we have found only the benign tertian and quartan; the latter constituting ninety per cent. of the cases.

Our new hospital wall is now up to the second story. The building is of solid brick with stone foundation extending four feet above ground. It is twenty-five by sixty feet. The first story is for the dispensary, drug room and large ward; a hall separating the latter from the former two. Upstairs will be a surgery, laboratory and four private rooms. I think when finished, ours will be the only hospital building in the province that was built especially for this purpose. May it soon be joined by others!

Cumberland Presbyterian Mission, Chang-teh, Hunan.

REMOVAL OF AN OVARIAN TUMOR WEIGHING SEVENTY-TWO POUNDS AND SIX OUNCES.

By J. H. McCARTNEY, M.D.

The patient came a distance of over 600 *li*, or 200 English miles, on the recommendation of a relative who had been in the hospital when a similar disease had been treated successfully by an operation.

Her age was forty years, was married when eighteen years of age. Her husband died when she was twenty-four years old, leaving her barren. She commenced to menstruate when she was sixteen years old and ceased when the tumor was noticeable at thirty-five years.

She had smoked opium fourteen years, using thirteen "chen" a day. She could not comfortably lay in a recumbent position on account of the pressure of the tumor on the diaphragm, and sleep was out of the question, excepting when in a sitting posture.

When she attempted to stand or walk about an attendant was always needed for support. She reached us in June, but on account of wild talk on the street about what we did, she was frightened, and did not come into the hospital for nearly a month after reaching the city. She came in about the middle of July, but owing to her opium smoking and the great heat we refused to operate until she had broken off her opium.

The weather did not break for about five weeks after her entry, and as she had waited so long and patiently, we decided to operate after the first fall of rain. During the time she waited she was given *iron* and *strych.* as a tonic three times a day, and for three days previous to the operation she was given one-sixtieth grain of *strych.* each morning and evening. She was given nothing to eat but rice water for several days preceding the operation.

I was ably assisted in the operation by Dr. Kirkwood and Dr. Hall, while Mr. Jas. Wang, my first assistant, gave the anesthetic. The incision was made with a pair of scissors, extending from about two inches above the pubic bone to at least three inches above the navel. The sack was found firmly adherent to the peritoneum. The fluid was drawn off through a cyst-

trochar and proved to be about the consistency of cream and of a dark color. The entire anterior surface was firmly adhered to the peritoneum and the posterior surface had numerous adhesions to the omentum.

The adhesions were broken down and the tumor pulled out, ligated and cut away. The bleeding from the surface of the peritoneum was persistent and profuse. So much so that the abdomen was flushed with saline solution once or twice. On removal of the large tumor, which was on the right ovary, there was shown to be a tumor about the size of a man's head on the left organ also. This was removed and the stumps were ligated with kangaroo tendon. At this stage in the operation the patient showed signs of collapse, and hot water bottles were ordered, with the result of producing three severe burns in different parts of her body, which have since given more trouble than the operation. The peritoneum was stitched up with a continuous catgut and the walls with a similar material also, and the skin with silk and silk-worm gut.

She rallied nicely from the operation and improved daily until about the eleventh day, when her fever went up to about 101.3. Previous to this it had remained normal or nearly so all the time. The dressing was removed and a stitch abscess was discovered, which was evidently caused by the subcutaneous catgut. After this she developed bronchitis in one lung, but this readily yielded to treatment, and at the present writing, a little more than four weeks after the operation, she is entirely well, with the exception of the burns, which are healing nicely. She sat up in bed the tenth day after the operation, and in two weeks was weighed on a pair of Howe scales, and weighed fifty pounds, which was seventeen pounds and six ounces less than the weight of the tumor. We weighed her again at the end of four weeks and she weighed seventy-five pounds and eight ounces, having gained twenty pounds and eight ounces in two weeks.

It seems almost incredible that the tumor should weigh more than the woman, but I can vouch for the correctness of the weight on a new "Howe" scales.

EMPLOYMENT OF CHRISTIANS.

By EDMUND S. DUKES, M.B.

There is a statement in the July number of the JOURNAL which should not be allowed to go without a protest from some one. It refers to the habitual employment by the church of such natives as lose their work through profession of faith.

The danger is obvious: to be employed by a foreigner is much coveted, as numbers will throw up their own trade and join the church for a better living. There are few foreigners perhaps who can detect the dishonest motive in such a case if the wily native is on his guard.

Whether such a question is within our sphere as medical men some clericals might doubt. I would be the last to countenance a doctor interfering in the management of a church. But friendly consultation and advice is our due as missionaries, and the more scientific training of a doctor may perhaps be of use to the scholastic turn of mind generally found in the ministerial brother.

So let us boldly consider whether it is wise to hold out inducements to men to become Christians; more plainly, whether or no we should pay them (in cash or kind) for their joining our churches.

Now it is obvious that to an unregenerate mind the preaching of the gospel may have no attraction, yet if he can be induced to listen and understand the message, it is quite possible some chord will vibrate to the truth. I have been struck with the large part worldly inducements have had in such successful missions as those in the South Sea Islands, where tomahawks, etc., were freely distributed. And no doubt to thus use the products of a superior civilization to increase one's influence is altogether good.

So if we too can by our knowledge or money make ourselves of use to men, it will be our duty to spend and be spent in that labour of love.

But we must not forget that it is not to a select few to whom our Master has sent us; and any gifts we have it in our power to bestow must be for outsiders as much as for our chapel people. One was glad to see the reasonable and firm attitude reported by Dr. Saville, of Peking, in this particular. If we treat our church adherents and members in a different way to that we adopt to others, we shall soon have people attending regularly for a time previous to their application at the hospital, after which they will, as I have seen them, drop off again. Besides, even if it be a small matter, it gives the impression that in *all* ways our churches are for the advantage of the members, instead of being, as they should be, for the help of the lost.

We may well remember, too, as Dr. Saville reminds us, that it is the poor to whom we are specially sent, and that those who are able to pay for medicines and for our expenses, will naturally be expected to do so, since even our comparative wealth has a limit!

If we could but make it clear to officials and people alike that we do not come to foster a faction in China by any other means than the gospel, and if it were universally known that our love embraced the Chinese outside equally with those who think to flatter us by entering the church, we should on the one hand, remove much prejudice and on the other, preserve our churches from the scourge of unworthy members while we attracted honest seekers after the truth. And so we should teach men that the Pearl of Great Price is of greater worth than all worldly possessions, and show that we expected them, as a matter of course, to forsake all that hindered and follow Christ.

NOTES ON THE CLINIC OF THE MASTER PHYSICIAN.

By "Z".

I. THE LARGER PURPOSE.

To those of us who, being more or less familiar with the life and the literature of the ancient Hebrews, dwell in native China of to-day, it can hardly fail to be a matter of interest and delight to trace, even beneath the pervading eastern atmosphere of both races, the deep-running currents of sameness and similarity in their characters, social customs, and mental reactions. One reads such a book as "*Studies in Oriental Social Life*" (Trumbull) and fairly feels that one might substitute the word China for Palestine and Syria and print a dragon on the cover; and the gospel narrative is vivid indeed, when one has but to lift the eyes to see a river of ancient eastern life glide by—a Matthew at every liken station, James, John, and Zebedee on every lake-shore mending their nets, Ruth gleaning, Boaz winnowing, a go-between for the betrothal of Chinese Isaac and Rebekah, and blind Bartimeus by the roadside. Yes, and the parallel currents flow more deeply. Ask an artist in the homeland to illustrate the words, "Come to me, all you who are toiling and burdened, and I will give you rest," in terms of present-day American life. It can be done, but not easily, and the result must lack the simplicity of the original conception. But, on the other hand, ask a Chinese artist to illustrate the same in terms of every-day Chinese life, and it is readily done, and he will paint for you a gracious host, at the road-side entrance to his "so-kyien," doors wide open, warm welcome in his kindly face and extended hands, and a group of foot-sore coolies gathering about, setting down their back-breaking "t'iau" and "kaung" burdens, and their overloaded wheel-barrows, and gladly accepting the proffered refreshment. A very living fact, that weary and heavy laden body to the Chinese coolie.

Thus it comes about that we have opportunity beyond the many of placing ourselves in the atmosphere in which the Master Physician did His work among the blind, the lame, the lepers, the deaf, and the poor; and, if we will, of studying with living illustrations the records of His clinic.

The records of the Master's clinic are full enough and freely open to every student, and I do not hesitate in saying that there is no other series of cases on record of which the earnest study will prove comparably as profitable to the practical physician—not from his standpoint in relation to therapeutics (the intention was absent) but from the standpoint of the physician in relation to the larger science of men. In His thorough understanding of men, in the supremacy of His professional ideals, and in the firm grasp of His final objective; in His personal attitude towards His life-work, in His mani-

fest difficulties and bearing towards them, and in His estimate of success, there is, for the physician, inspiration and instruction beyond our measure of value.

The Master Physician's conduct of each case should be studied separately with carefulness. First the picture (plan it in your mind)—the place, the time of day or night, the characters and their several circumstances, the patient, his disease and his needs, felt and actual, the relatives, friends, and enemies too; the figure of the Physician, His dignity, tenderness, readiness, and wisdom, His greeting and questions, the answers to the same, aid sought or unsought, trust present or absent, the pains taken to understand and help, the relief, the comfort, the human touch. Note the difficulties, the degree of gratitude, the blessing and dismissal, the impression, the lesson and the Physician's estimate of success. Then—What is the application? What can we use? How can we live it? The records are open to all and the value to the student is, as usual, proportionate to the personal effort, and it is practical and potent. In the case of the man with the withered hand (Matthew xi. 9-14) (infantile paralysis) there is splendid breadth of view and mighty strength of manly courage, and I do not believe that one of us can spend an hour's deep thought on the record of Christ's visit to the house of Jairus and thereafter look upon a dying child with unaltered mind.

This study should be through the years, for its lessons never fail, and these few student's notes from the Master's clinic (in this and another paper to follow) are offered with diffidence, so well trodden is the holy ground, but in the hope that something therein may prompt others who have not thought to do so, to study the records of the Great Clinic for the model and inspiration of their own.

The Larger Purpose.—To each and every medical missionary who aims to follow on, I take it for granted that the matter of paramount interest, the subject of major importance in life's work, is included in the correct answer to this question. In the work of Christ as physician, what was the ultimate objective? Why did Christ heal the sick? for therein lies not only our example, our inspiration, and our goal, but our very *raison d'être*. Why did Christ heal disease? And the answer for us at least must not be looked for in works on theology, but in the records of the work done. To solve a question vitally practical which bears upon the commonest acts of our daily routine as well as upon the sum total of our doings, let us see how the Master Workman did His work.

The more one studies the records of the individual cures, the more, it seems to me, one is led to see that in spite of their great variety of form and apparent diversity of treatment the Physician's ultimate objective in them all was identical, and that in every instance there was in His mind, alongside of and above the physical cure, a larger aim and a spiritual. Now he heals as a help to faith or its reward, now as its measure, the faith in Him

by which He measured power to know all good. Now He heals to illuminate a lesson, to form a mighty text, to win the allegiance of the wills of men to the freedom of the kingdom that was to come, and now He heals to prove His life of love, the love that is the very "soul of God." But is His whole aim, in any single case, *per se* the victory over physical disease? I do not find that it is ever so. Let me briefly illustrate what I mean.

The paralyzed man, Mark II. Cure and a larger aim, to teach a lesson.

V. 5. Christ's first words—"My son, your sins are forgiven."

V. 10. "But that you may know that the Son of Man has authority to forgive sins on earth" here He addressed the paralyzed man, "To you I say, get up, take your mat and go home."

A man with a withered hand, Mark III. Cure and a larger aim, to teach a lesson.

V. 4. Of the people He asked; "Which is right, to do good on the Sabbath, or harm? to save life or destroy it?"

V. 5. "Stretch out your hand" and his hand had become sound.

Cure of a Madman, Luke VIII. Cure and a larger aim, making a disciple, etc.

V. 39. "Go back home," He said, "and relate the story of all that God has done for you."

An afflicted woman, Luke VIII. Cure and a larger aim, the reward of faith.

V. 48. "My daughter," He said, "your own faith has made you well. My blessing be with you."

Jairus's daughter, Luke VIII. Cure and a larger aim, a new view of death, etc.

V. 52. "She is asleep."

V. 54. "Child, get up."

I have no doubt at all that Christ saw, with the enthusiasm of the greatest of nature lovers, the cure of many a horrid disease, but according to the records He seems to have never once made a cure to see the cure happen, or for science without heart, or as a spectacular sign of personal power. He never raised His blessed hand to cure a man without some special throbbing of that great heart of love that beat that men might know God and broke at last that men might love and live.*

The life of no man has ever demonstrated a more clearly defined or more consistent objective than that of the Master Physician. In every phase of His work, whether as preacher, teacher or physician, He never lost sight of His goal—the establishment of the kingdom of God on earth through the revelation of the Father as men must know Him and through the revelation of man as God will have him.†

So, fellow-students, if we read aright thus much of the mind of the Master Physician, we know the answer to what is for us the great question, we know clearly the goal of our own race, the means to the end and the larger

* After careful study of the question, Bennett and Strond come to the conclusion that the physical cause of the death of Christ on the cross was "rupture of the heart." (*Diseases of the Bible*. Bennett, p. 133.)

† "Jesus . . . surveys . . . all human interests, from above, as a means to that spiritual education of the race which is to have its end in God's kingdom." And again: "Jesus not only surveys the world (of business) from above, but approaches it from within. His methods begin with the individual, His supreme intention is that of making persons who shall in their turn make the kingdom of God."—[*Jesus Christ and the Social Question*. (PEABODY).]

purpose itself. It is true that our work demands of us by every right a genuine scientific interest. Science is our strong right arm, and the truer it is and the purer it is, the stronger are we. We deserve no success if we fail to live up to the intellectual dignity of our grand profession. Let us write of our cases and report our successes, not forgetting our failures, keep our statistics and use to the utmost our every scientific opportunity, but in dealing with men, then the measure of our Christian manhood demands of us, over and above the scientific spirit, the heart of love and the larger purpose. There is no fuller answer to the oft discussed question as to whether or not the medical missionary should do other than serve the body than the dealings of Christ with His own patients. In modern times we word our commission thus: "Heal the sick in order to a more rapid and powerful diffusion of the gospel," but clearer and fuller is the commission of the Master Physician, founded on His practice and formulated for His seventy students "Heal the sick and say *unto them*, the kingdom of God is come nigh you." In other words, Follow my footsteps, be medical missionaries, heal the sick, and to some speak cheery words or lend a helping hand, make others feel you love them and to others still show that God is love; HEAL AND LOVE! For

"There are many kinds of love, as many kinds of light.
And every kind of love makes a glory in the night."

Yet the old words hold good, for in the mind and practice of Christ the Physician, the "kingdom of God" embraced all love.

AN IDEAL MEDICAL MISSIONARY HOSPITAL.

By RICHARD WOLFENDALE, L.R.C.P. and S., Edinburgh.

Because two at least of my own Mission in China (London Missionary Society) are about to build mission hospitals, viz., Dr. E. F. Wills, of Tsao-shih, and Dr. E. C. Peake, of Hengchow, may I be allowed to send a line to the JOURNAL under the above heading, dear Mr. Editor? You observe I do not say "*the* ideal medical missionary hospital," but "*an* ideal," hoping that in the near future others who have *been through the mill*, and built one, will give their hints as well. When I came to Chungking in 1896 our L. M. S. medical mission work had been closed for about three years, so you may well imagine in what state I found the Chinese-adapted premises that were shown to me for hospital and dispensary. In those early days it was as much as one could do to be able to put up a low two-storied building, even in Chinese fashion, for fear of riots, "fung-shui," evil spreading rumours, etc., so I emphasize the term *Chinese-adapted*. Now-a-days we live in more enlightened times, as my hints will tend to show. "This will not do for good, lasting work," was my first inward thought after leaving the old compound,

and to-day, through the magnificent help of British Consul, foreign residents, foreign and Chinese business men, and city mandarins—and the full co-operation of the Home Board who gave me a free hand—a stone and brick, fire-proof, three storied (with gong tower to ring service hours) modern building stands in their place. And only four years ago! It is true that Chungking is an open port, and that here we care no more for “fung-shui” and idle rumour than we do for the ubiquitous Boxer! but even in places (country stations for instance) that are not open ports an advance line ought, I feel sure, to be taken in the matter of foreign erections. The day for being satisfied with Chinese-adapted premises ought to be over.

“Occupying the joint site of the old Chinese building, formerly used as the hospital, and the pioneer residence of our missionaries, there stands an H-shaped block, built of brick with foundations of stone. These stone foundations in every case go down to the bedrock, on which the city is built. Between the brick and stone is a damp course of zinc plate (sand and tar are better). On each side there is a seven-feet (Chinese feet) verandah, both upstairs and downstairs, for the use of patients. In the hot summer months these are delightful, as they effectively shade the interior wards. From the higher ones the patients can smell and feel the pure fresh breezes blowing up the great Yangtse river, and have an outlook of river and country scenery of fifteen miles extent. The men’s wards are on the right limb of the H, the women’s on the left limb; upstairs and downstairs alike. Special private wards are for foreigners and the bluejackets of H. M. S. navy (the ‘Upper Yangtse fleet’ consists at present of three gun-boats), and the highest room in the building, and which has no less than eight windows in it, is the infectious ward. In every case the doors are fitted with shutters and are of French verandah type; the infectious ward is also fitted up with external window shutters, which will be of inestimable value, as in cases of small-pox, etc. A small section of the building is given over to a study and lecture-room and materia medica museum. The cross-line of the H is given over to three rooms (and a fourth story constitutes the gong tower); the front one, the larger of the two, will serve as a guestroom, and in the centre of it is built a broad staircase leading up to the upstairs wards on both sides of the building, and yet another short staircase to the infectious ward and tower, or *sai los*. The room behind is the operating room, communicating with both hospital wings (men’s and women’s wards) on the same level by separate doors and with the upstairs wards by the broad stairway: this operating room can therefore be used by foreigners and natives, and is lighted by sky panes and three good open-and-close windows fitted with wooden shutters. The men’s wards will accommodate fifty beds very easily, women’s and private rooms, also fifty. The six L. M. S. hospital assistants and medical students are housed in the same compound, and to each has

been given a small bedroom study. In case of fire, three wells in the compound are being kept in repair. Native tiles are used on the buildings for roofs, and have given every satisfaction. Foreign fire grates and chimneys have been introduced, and are much appreciated by the patients, although one felt at the time that this 'innovation' would not succeed. It has done so, however. Air space without and around has been provided for by getting the foundations and superstructure high, and in some cases pulling native walls half-way down and rebuilding with tiles, which method is so successful with the Chinese. In the heart of a great Chinese city, such as this, high walls, and a little crowding are inevitable, but by these means the best results are accomplished."—[Altered abstract from 1898 Hospital Report.]

The year following, the foreign dispensary was put up, a building separate and distinct from the main building, and consisting of consulting room, dispensary, minor surgical, and dark rooms. By the kindness of clerical colleagues the daily street preaching chapel is used as out-patient room, and so the "set" is complete.

We, Mr. Editor, in the West here have a proverb which runs thus: "No missionary has served his apprenticeship until he has built a house!" If all is true there is no better test of one's extent of language—and *patience*—than in building along foreign lines. No matter how well you tell your "laopan" to do a thing, it seems to him just the natural thing to do the exact opposite, and building needs personal supervision to the extremest point. Then the conditions of climate interfere; the summer sun was so intensely hot during my own "apprenticeship" that it blistered the men's backs as they were working, and this was immediately followed by a three weeks' downpour of rain that made it difficult to keep mortar and bricks together! Let our young builders know what awaits them! My own scheme was not completed for twelve long and weary months! The "apprenticeship" was a long one.

I would in conclusion submit some general rules which may help:—

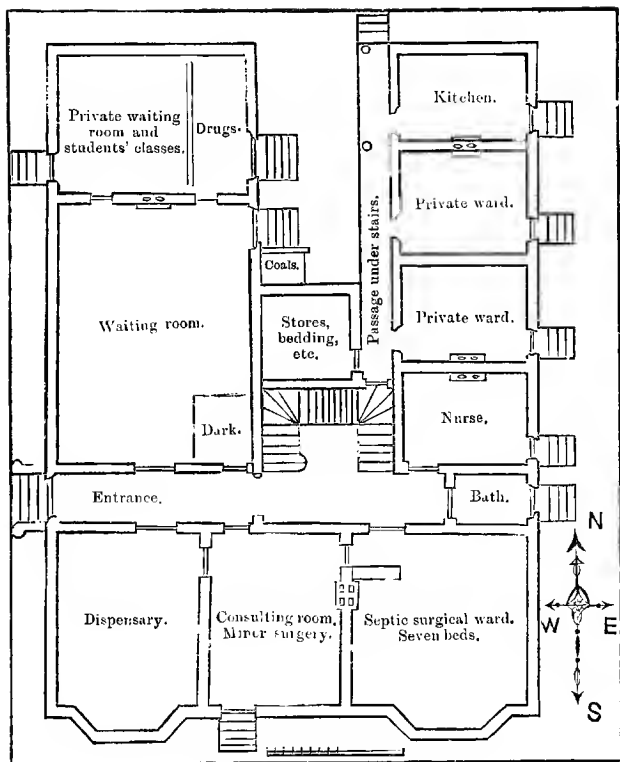
I. Build, if possible, on a high level and near the city wall. You will have at least one side free from Chinese, and if the hospital faces an area of deep water or flowing river, so much the cooler and better.

II. Seek for strength and durability; these are only to be found in brick and stone buildings.

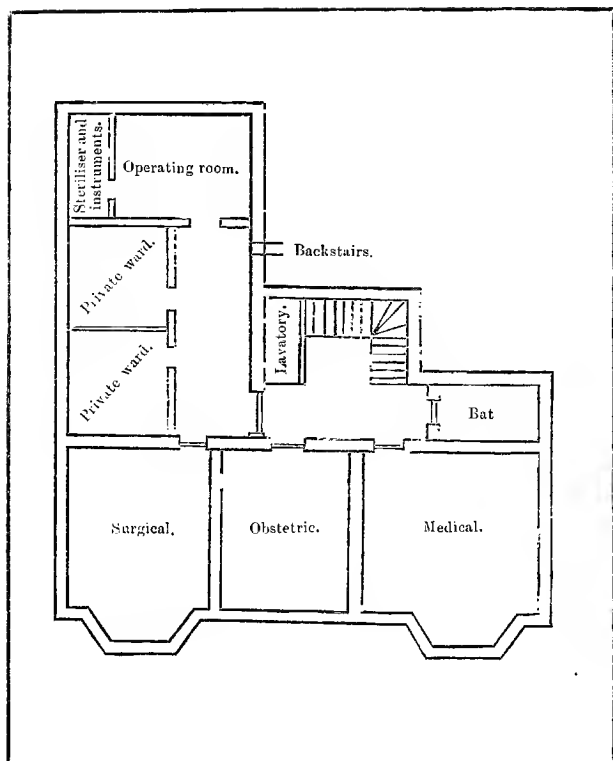
III. A two-storied building is infinitely preferable to a bungalow type. The higher one gets the freer from disease.

IV. The dispensary and out-patient department should, if possible, be separate and distinct from the main hospital building.

V. Make provision for sick foreigners, i.e., establish a "foreign ward." There may not be any immediate necessity for such, but there will be in



L. M. S. WOMEN'S HOSPITAL, PEKING.
(Ground Floor.)



L. M. S. WOMEN'S HOSPITAL, PEKING.

(First Floor.)

the near future. Bluejackets have come to stay with us, surveyors and mining agents are yearly increasing in numbers, and travellers *ad infinitum*.

VI. *Re Plans*.—Every doctor should make his own, and no one plan can do for all. The length and width of the plot purchased for building on will be his best guide. "Cut your shape according to your cloth." Then of course there is the question of expense, and only personal attention to small items will keep this down. It is a better thing to have three contractors on the job, viz., carpenter, mortarmason, and stonemason, than to entrust the whole scheme to one man.

VII. If Chinese property has been bought see that all drains are opened up to light and air for weeks before building, and under no conditions whatever allow a drain to flow *under* the foreign hospital. (Chinese way of making drains is all the better for a good downward and slanting flow.)

VIII. Make the wards light, airy, and well ventilated, *but not draughty*. The Chinese are like barometers, and are susceptible to the least change of atmosphere.

IX. *Bedding and clothing* need not be "foreign," i. e., blankets, foreign sheets, and pyjamas are not really required. We are not come out to China to make the Chinese British or Americans. The cotton vests, etc., worn by them is all that one desires, provided they be kept white and clean. Then the *pukai* can be kept absolutely clean by changing the outside covering, tied by tapes along one side, as often as is found necessary, and lastly the foreign hospital should be kept, and manned by a set of intelligent Christian students, who will take some pride in its erection in their city and district, who can regularly and in turn keep the out-patients' register in English and conduct hospital prayers in the wards.

With the hope that ideal medical missionary hospitals will soon be erected broadcast all over awakening China, I send these few lines, with best wishes of success to all doctor-amateur-builders. Let them consult I. Kings vi. 11-14.

London Mission Hospital, Chungking, West China.

Medical and Surgical Progress.

Medical.

Under the charge of Robert T. Booth, M.B., B.Ch., R. U. I.

The *Lancet* has published recently a very interesting article by Manson on the Diagnosis of Malaria. I cull a few points from the third section, viz., Microscopic Diagnosis. He says, this is the most satisfactory, provided it is undertaken by one with large experience. A negative result by an amateur is valueless, a positive one is not much more to be trusted. It takes much practice to recognise all forms of the malaria parasites, to discriminate between them and vacuoles in the red corpuscles in fresh specimen, or dirt in dried and stained films. Although all may not be able to differentiate, every practitioner should be able to prepare blood films for examination. He recommends the following method: An ordinary microscopic slip is cleaned with alcohol. The patient's finger tip or the lobe of his ear is similarly cleansed. The finger or ear is picked with a clean and rather long ordinary sewing needle. A drop of blood is pressed out, and as it may contain epithelial *débris*, is wiped away. A second but very minute drop, of the size of a large pin head, is then expressed and touched lightly (the skin must not be touched) with the clean surface of the slip about an inch from the end. Immediately the shaft of the needle is placed transversely on the droplet of blood so transferred to the slip. After waiting a second or two for the blood to run out by capillarity between the surface of the slip and the needle, the latter, held between the finger and thumb, is drawn along the surface of the glass. In this way with a very little practice, a beautifully fine and even film is produced. For purposes of diagnosis Manson uses either

borax-methylene blue or dilute *carbol-thionine*. In stained films or in fresh specimens, it is practically always possible to find the parasite, on one condition; the patient must not have taken *quinine* recently. Certain forms of the parasite, the crescent, for example, may be found after full doses of *quinine*, but the usual fever-causing forms, as a rule, disappear after the administration of the drug. In some cases when the parasite or its product melanin is not detectable in the peripheral blood, it seems that the microscope may be relied on for diagnosis. During and for some time after malarial attacks the leucocytes are greatly diminished in proportion to the red blood corpuscles. The diminution is principally in the polymorphonuclear and lymphocytes, so that there is a relative increase in the large mononuclears. Dr. Christopher and Dr. Stephens have described a method by which a fairly reliable diagnosis of recent or actual malarial infection may be made, no matter whether *quinine* has been administered or not. The increase in the mononuclears, they state, is principally during the apyretic intervals, setting in as soon as the temperature begins to fall. An increase beyond fifteen per cent. is proof of actual or recent malarial infection.

ARE ANOPHELES THE ONLY AGENTS IN THE TRANSMISSION OF MALARIA?

Writing in the *Semaine Méd.* for May, G. Montoro de Francesco asks some very pertinent questions in reference to this very interesting subject. It has been shown, he says, by competent observers

that the anopheles cannot transmit malaria to its offspring. Each insect must infect itself, and a period, varying from twenty to thirty days, elapses before it is capable of spreading the infection. He then asks, how does the anopheles obtain the organism of the form of malaria which appears in spring and which is so different in its evolution and clinical manifestations from the summer and autumn variety? The same question arises regarding the quotidian form which becomes epidemic in Italy at the end of the season, and is consequently nearer to the next epidemic, when the form attacks few persons. He comes to the following conclusions: (1). Malaria exists in localities absolutely free from anopheles. (2). The co-existence of these insects with malarial patients does not necessarily imply the diffusion of the disease. (3). Anopheles, as the culex—and doubtless many other insects—may play a part in the transmission of malaria, but other causes, notably damp air full of exhalations, play a more important part. *The soil is the real soil of the hæmatozoa.* While guarding against mosquito bites, it is still more important to avoid exposure at sunrise and sunset. Quinine should be taken and the rules of general hygiene observed.

“TYPHO-MALARIAL FEVER.”

Time and again we have heard the above diagnosed, and it seemed as if the diagnostician had discovered a new disease; in fact some said they had found the parasite thereof. In these latter days we are beginning to realize that, while a combination of typhoid and malaria may occur and does often occur, still there is no new disease which can really claim the above title. We do not talk of “tuberculo-malaria,” although it is possible to have “tuberculosis in some form or another combined with malaria.

We recognize also that the combination of malaria and typhoid is by no means such a simple disease as

either typhoid or malaria separately. *The severity of the disease tends to show that the typhoid bacillus is rendered unusually virulent by the presence of the malarial parasite.* S. A. Gavala in the *Vienna Clinical Weekly* for May refers to the symptoms of the above combination, and it may prove of aid to us in the East, where such a disease is not uncommon, to note his remarks.

The symptoms and morbid anatomy vary according to the infection which predominates. The onset is frequently marked by attacks of intermittent fever, which later give place to a quotidian or remittent type. The regularity of the continued fever of typical typhoid is absent and short apyrexial periods are common. In some cases the temperature never rises above 100.4°. *The most striking cases are those in which after a short initial rise the temperature becomes normal and remains so throughout the illness.* The prognosis then is usually bad, and there may be constant delirium. A slight rigor usually precedes the evening rise of temperature (if present), and the remissions are accompanied by slight perspiration. Duration of combined affection is two or more months, and this disease is then continued as a simple tertian fever.

Epistaxes and gingival hæmorrhage are common. The liver is always enlarged and tender, and there is often jaundice. Spleen invariably enlarged, soft and friable. Urine contains much albumen. Coma, intestinal hæmorrhages, and cardiac failure account for most of the deaths. In some cases there may be peritonitis. A rosealous eruption was never observed. *Post mortem*, nearly every organ infiltrated with pigment (malaria).

EBERTH'S BACILLI IN ROSE SPOTS OF

TYPHOID.

In doubtful cases of typhoid fever the rose spots should be examined for the presence of typhoid bacilli. Two recent writers have found them in

every one of fifty cases examined, and attribute the negative results of others to faulty technique.

Some of the tissue of the rose spots should be transferred to a liquid culture medium. The number of bacilli in each spot is too small for growth to be obtained on solid medea. In broth a copious growth appears twelve to sixteen hours after inoculation. Two or more spots should be examined.

This method is valuable in cases in which Wedal's reaction is delayed.

ACUTE SYPHILITIC NEPHRITIS.

Acute nephritis is rare in early syphilis. Cases are reported from time to time. In this there is great albuminuria. No other cause than syphilis could be discovered, and the cases speedily recovered under mercurial treatment.

The following circumstances alone justify the diagnosis. (1). Kidneys must be known to be healthy before contraction of syphilis. (2). The severity of the renal symptoms must run parallel to the other symptoms of syphilis. (3). The albuminuria must improve or disappear under mercurial treatment.

CHINOSOL.

This drug has come greatly into use in the last couple of years, and is a very valuable antiseptic. In addition to its use as an antiseptic lotion, it has been used with great advantage in many conditions.

The injection of a one per cent. solution into carbuncles has produced immediate relief. When injected into the sensitive and thickened spot on skin, probably the forerunner of a boil, no boil appeared.

Chinosol, combined with *guaiacol carbonate*, has been used successfully in phthisis.

Mixed with *cocaine* and made into a pessary, it has been found of use in uterine catarrh.

A young woman with phthisis, developed a lupoid ulcer on the upper lip, *Chinosol* was injected, and it healed rapidly with a smooth scar.

Several cases of nasal lupus have been treated, and in all the swelling of the mucous membrane rapidly disappeared.

Cases of phthisis have also been much benefited by the hypodermic injection of *chinosol*.

Malignant pustule may be cured by a single injection.

ARSENIC AND CANCER.

As early as 1887 Jonathan Hutchinson pointed out that the prolonged use of *arsenic* in medicinal doses may produce keratosis of the palms and soles and a peculiar form of epithelioma.

He has more recently pointed out that soap contains arsenic, a fact which seems to explain its well known influence in producing chimney sweep's cancer.

In the *Polyclinic* for July, Jonathan Hutchinson cites several cases in support of the connection between *arsenic* and cancer. I shall mention one case in illustration. A man, aged seventy, seen on September 29th, 1899, for an ulcer standing on the right forefinger and another on the back of the right shoulder, where the brace might have rubbed. Both ulcers were somewhat peculiar, and in association with them was a rough corneous condition of the palm which led Mr. Hutchinson to diagnose *arsenic* cancer. Investigation showed he had taken a considerable amount of *arsenic*. The finger and ulcers were removed and proved to be epitheliomatous.

Surgical.

Under the charge of J. PRESTON MAXWELL, M.B., B.S., F.R.C.S.

ON THE REMOVAL OF FACIAL DEFORMITY BY THE INJECTION OF PARAFFIN.

During the last year or two the above treatment has been successfully carried out by many surgeons. Paraffin of varying melting point has been used, but the most useful seems to be that with a melting point of about 104°F. Various forms of syringe have been used; the only essential being some means by which the needle can be kept hot and so prevent the paraffin solidifying in its lumen. Photographs of two very successful cases were published by Downie, of Glasgow, in the *British Medical Journal* for May 3rd, 1902, with a descriptive account of the cases.

ARTERIO VENOUS ANEURISM.

An important paper bearing on the above subject was published in the *British Medical Journal* for May 10th, 1902. In this article by Sir F. Treves the prognosis and treatment of the affection are considered. Prognosis is decidedly unfavorable, spontaneous cure being almost unknown, but the mortality is not high when compared with the mortality due to aneurism, in which the artery alone is involved. In varicose aneurism the prognosis is more favourable than in aneurismal varix.

Rest, posture, bandaging, persistent compression, and the Hunterian ligature are only mentioned to be condemned.

The treatment *par excellence* is the ligature of both artery and vein above

and below the aperture of communication with excision of the sac between the vessels in the case of varicose aneurism.

But of course in many cases the ideal treatment cannot be carried out and the cure is incomplete.

RETROPERITONEAL LIPOMA.

In the *Journal of Obstetrics and Gynecology* for September, 1902, there is an article on the above subject by Doran, of London. Retroperitoneal lipoma is a rare disease, and must be carefully distinguished from omental lipoma which, although retroperitoneal, is as much intraperitoneal as an ovarian or broad ligament cyst. Omental lipoma is not by any means as serious an affection as the disease under discussion. Of true retroperitoneal lipomata and their removal there are records of only some seven or eight, and of these only two are records as having been successfully removed.

Doran's case was remarkable in several ways. The right kidney was displaced and connected with the mass, one lobe of which ran up to the liver and was somewhat adherent to the region of the pancreas, where the large vessels running from this lobe were seized and tied. The vessels from the left lobe were also traced to this region and tied. The tumour weighed thirteen pounds and twelve ounces. The patient died of urinary suppression thirty-eight hours after the operation, and no necropsy was obtainable.

Skin Diseases.

Under the charge of KATH C. WOODHULL, M.D.

TREATMENT OF ACNE BY THE X-RAYS.

Two effects produced by the X-rays, namely, the checking of pus formation and the atrophy in the follicles, have

suggested its use in the treatment of acne to R. R. Campbell, M.D. (*Journal of the American Medical Association*, August 9th, 1902.) His results have been gratifying, and he

reports numerous cases, of which the following are examples:—

Case 7.—Mrs. D., aged twenty-nine, brunette; severe acne of the forehead, cheeks, and chin, with rosacea of the nose; eruption existing to greater or less degree for twelve years, the face and nose never in this time presenting an appearance even approaching a normal or healthy condition. Between April 22nd and June 4th, 1902, twenty exposures to the X-rays were given, ten minutes each at ten to thirteen cm.

Exposures were made every day, and resulted in the entire disappearance of the eruption. No dermatitis or erythema was produced in this case, and no tendency to recurrence can be noticed at this writing.

Case 9.—E. G., aged twenty-five, brunette; eruption consisted of comedones, papules, and pustules. It began fifteen months ago on the chin, and at present it involves the entire face. This patient was given eleven ten minutes' exposures, between January 17th and February 12th, 1902, at which time the face presented a smooth, clean, and healthy appearance, and at last reports, which was two weeks ago, no recurrence had taken place.—*Medical Review of Reviews*.

ARSENIC IN DERMATOLOGY.

Lassar and Schild (*Dermat Zeitschr.*, April, 1902) have been experimenting with a meta-anilide of arsenic which they consider to have advantages over the more commonly used preparation of arsenic. It is called atoxol, and is a white inodorous powder, with salty taste, soluble in twenty per cent. of warm water, and is of permanent composition.

It is well suited for hypodermatic use, but given internally soon disturbs the stomach. The dose for subcutaneous administration is at the beginning one-twelfth grain, and it has been increased gradually to seven grains. The remedy has a cumulative action.

Over seventy-five patients had more than 1,500 injections among them, without any irritation or infiltration worth mentioning. Thus an amount of arsenic ten times as much as that usually employed, can be used in this way without detriment. Tested in concert with external treatment, an acceleration in recovery was perceptible. Thus, in twenty cases of psoriasis, the average duration was twenty-nine days, and of ten similarly managed, the required time was twenty-five days, periods which compare favorably with those usually necessary. When atoxol alone was used, three cases of psoriasis exhibited marked improvement, even after five or six injections; but though this was maintained in a measure, complete cure did not ensue. Much better results were obtained in fourteen cases of lichen planus; of these, nine were entirely cured; the average number of injections necessary being twenty-seven in course of fifty days.

PRURITIS AFTER ARSENIC.

Purely local pruritus without alteration of the skin is a rare phenomenon in the course of the administration of arsenic. Two examples, therefore, related in *Monatsh. f. prakt. Dermat.*, April 15th, 1902, are of interest. One was a strong man, aged thirty-five, with no neurotic tendency. Any active external remedy occasioned dermatitis if the psoriasis from which he suffered was so treated. Under gradually increasing doses of arsenic, pruritis of the scrotum appeared, though he had no psoriasis there. This disappeared when the arsenic was discontinued.

In a case of lichen planus, where the arsenic was given in pills, the patient after a time complained of itchiness in the left groin, although the general itchiness and the eruption manifested improvement. The lichen gradually faded, but the pruritus increased in the groin. It vanished

with a reduction of the dose of *arsenic*. The most probable cause was the excretion of the *arsenic* in the perspiration.—*Medical Review of Reviews*, September 25th, 1902.

THE NEW CAMPAIGN AGAINST SYPHILIS IN ASIA MINOR.

Prof. E. von During has long resided in Constantinople, and was entrusted in 1896 with the task of planning a campaign against syphilis throughout Turkey in Asia. The province Kastimuni supplies the recruits for the capital, and the authorities found that every candidate was affected with syphilis, while whole villages have been wiped out by its ravages. It has been increasing for forty years, in spite of occasional brief spasmodic efforts to eradicate it. Von During found entire provinces where every peasant he met seemed to be syphilitic. He traveled on horseback more than 3,125 miles during the last two years. He decided that numerous small hospitals were needed, supplemented by polyclinics and flying columns. He now reports that he has ten hospitals nearly or quite completed and several polyclinics; and the campaign is being pushed with vigor in the north-western provinces. The total expense of these hospitals was only \$70,000, and he is himself amazed at the smallness of the sum; but, as he remarks, whole books might be written about the difficulties experienced in obtaining this amount and in accomplishing this result in spite of Oriental inertia. Most of the hospitals consist of three pavilions, models in every respect; the mountain streams supply pure water and the drainage is perfect.

He states that in the province of Kastimuni alone nearly 25,000 persons need treatment every year. He found leprosy prevalent everywhere. The number of lepers is not great, but one or two were encountered in every village. They were formerly kept in

strict isolation; the leper was driven away from the community and compelled to live with other lepers in some secluded spot, but of late years these regulations have been disregarded and the lepers mix freely with the populace. Zambaco's proclamation of the non-contagiousness of leprosy has probably something to do with the present laxness. He found that all the officials quoted Zambaco.

During's letters to the *Deut. Med. Woch.*, Nos. 12 and 23, contain interesting descriptions of the medical aspect of Asia Minor, the beautiful mountain scenery, and the quaint therapeutic customs. He states that an alcoholic extract is made of the roots of the horse radish which, according to the experience of the natives and the railroad employees, proves an effectual preventive of malaria, even in the most malarial districts. He can testify himself that persons who went into these districts to open up the railroad, did not contract malaria, and attributed their escape to this extract. (*Jour. A. M. A.*, July 5th, 1902.)—*Modern Medicine*, August, 1902.

THE FINSEN METHOD OF PHOTO-THERAPY IN DISEASES OF THE SKIN.

Prof. Charles Warren Allen in the *Post Graduate*, October, 1902, says:—

Though little has yet been done in this line in America, the number of operators is steadily increasing with the growth and perfection of mechanical detail in the apparatus, and indications point to great activity in this field in the near future.

Franklin and Gottheil mention some experiments in the *Medical Record*, April 19th, 1902, in which they have demonstrated that with large and powerful electric arc lamps, sufficient chemical rays may be caused to penetrate the human body to impress a photographic plate.

The same experimenters give in the *American Therapist*, June, 1902, a brief essay upon light and a report of

some cases which have been successfully treated and others which are still under treatment and progressing favorably.

S. Bang, in the *Indiana Medical Record*, March 12th, 1902, presents the present status of photo-therapy. Of 640 cases treated by him, 456 are cured, and no recurrences has taken place in 130 cases, though five years have elapsed since they were discharged.

Tuberculous lupus of the face is discussed by Leredde and Pautrier (*Derm. Zeits.*, Bd. DX., Hf. 2), who have treated forty-three patients. After giving the technique employed, they conclude: Phototherapy gives the best results of all present methods, and is the only method with a regular effect. It gives the best cosmetic results, with which scarification alone can compete. It is quite painless, and the duration can be diminished by combining with it other methods.

TREATMENT OF LUPUS BY RADIUM.

This is the newest method that has been tried, especially in France.

Hallopeau and Gadaud (*Annals de Dermatologie et Syphiligraphie*, July, 1902) have shown a patient with verrucose lupus much improved under this new substance. It was left in contact with the tissues for seventy-two hours, causing an ulceration lasting fifteen days. Other ulcerations persisted for six months, and this would seem to be a serious drawback to the employment of this method.

The rays seem to be a mixture of cathode and X-rays. Both articles will prove interesting reading to all now working in those newer fields of light therapy.

DERMATITIS MEDICA-MENTOSO

DUE TO CALOMEL.

Charles Townshend Dade in *Medical Review of Reviews* for July 25th, 1902, reports the following: "In view

of the marked difference of opinion among dermatologists as to whether mercury taken internally will produce an eruption, Dr. J. B. Shelmire's report of a case (*American Medicine*, June 7th, 1902) is of interest. He reviews the testimony of many experts for and against the proposition, but the array he finds in favor of mercury given internally producing an eruption, in certain persons, inclines him to place his patient among the number afflicted. On September 25th, 1901, I was called to see Mr. Dallas, aged forty, weight one hundred and eighty pounds. He is a fine specimen of physical development. He has always had excellent health. His chief ailment has been several attacks of a severe and extensive erythematous eruption. In late years, after careful observation, he has associated this with the ingestion of calomel. His first experience was eight years ago. At this time he used mercurial inunction, one application, on pubes and adjoining regions, to rid himself of crab lice. This was followed by a severe dermatitis of these parts and extended some distance up the sides of the body far removed from the parts anointed. Between this time and 1896 he could recall three attacks of erythema following the ingestion of calomel. In 1896 he had quite a severe attack, which confined him to bed for several days. This was the only attack in which there was formation of crusts and scaling of the skin. He was having light fevers before the attack and was not taking any other medicine. Two weeks after this attack, noticing his tongue was slightly coated, he took calomel again. This time the eruption appeared within twelve hours. It was of a deep red color, smooth and shining. It was accompanied by more of a burning than an itching sensation. At this time he spoke to his physicians as to the probability of calomel causing the eruption. They assured him most positively that the eruption was an eczema and could not be caused by

the *calomel*. In 1897, on his way to New York, the eruption promptly followed a five-grain dose of *calomel*. Although covering the greater part of the body it had nearly disappeared before he reached that city. He consulted a dermatologist, who informed him that the *mercury* could not have caused the eruption. The patient, however, was so firmly convinced to the contrary that he resolved not to take any more *calomel*. He was faithful to this resolution for four years, and during that time had no eruption on his body. About the middle of last September he felt that his liver was not functioning properly and began to take different medicines. Not getting the desired relief, he debated with himself and wife the question of taking *calomel* again, and finally took a five-grain dose. Within twelve hours the eruption appeared. I saw him about sixteen hours after its inception. The entire abdomen and chest, most of the back and the greater portions of the arms and legs were covered with a deep red, smooth, shining eruption, erysipelatous in appearance. The patient complained of an intense burning and stiffness of the skin. The itching was not so annoying as the burning. The skin felt warmer than usual, but the temperature was not above ninety-nine. Pulse normal. Within twenty-four hours the eruption began to fade, and disappeared within six days without any scaling. During the past eight years this gentleman has had eight attacks of this eruption, and each time following the use of *mercury*. He

was questioned closely, and he assured me he had not taken *mercury* in any form except at these times."

"Additional Note.—Mr. A. promised me that he would at some convenient time have me give him *mercury* and watch the results. He either could not find the time or summon the necessary courage for the experiment, but an attack of lumbago furnished the desired opportunity to test the drug. On February 22nd, he telephoned his family physician, one recently employed, and who knew nothing of his idiosyncrasy, that he was suffering from pain in the back, and requested that he should send a prescription. Six powders were ordered, each containing one grain of *calomel*. A powder was taken at 2:00, 4:00, and 6:00 p.m. At 7:00 p.m. he felt a peculiar but familiar pricking of the skin. He immediately telephoned to his physician to ask if there was *calomel* in the powders. On learning that there was, he took *salines* freely. On the following day the rash was out in all its severity. I was called in on Monday, the second day of the eruption. The entire body was covered with an erythematous rash. There was some thickening of the skin. The arms were involved to the elbows and the legs to the knees. No eruption appeared on the exposed surfaces. As before, the eruption was attended by a burning rather than an itching sensation. I saw the patient but once. He was able to keep at his place of business, but the eruption did not entirely disappear for several days."

The China Medical Missionary Journal.

VOL. XVII.

JANUARY, 1903.

No. 1.

Editorial.

On entering upon our term of service, the editors elect are conscious both of the advantages and disadvantages of taking up a line of work at the point where an exceptionally able predecessor has laid it down in flourishing condition. It is to be expected that the JOURNAL will, under the circumstances, feel the change of head to its disadvantage. Fortunately, however, for all concerned, in matters editorial the good that a man does lives after him at least for a time, in the form of sound foundations for defined policy (purpose), fair spirit and strong contributing support, which are so largely the fruit of past labor. Upon the present inheritance we enter with satisfaction to ourselves but with diffidence towards you whom we are privileged to serve:

1. The foundations of the JOURNAL'S purpose were fairly definitely laid down fifteen years ago on the formation of the society of which it is the official organ, and since that time the aim of its editorial heads has been to build a substantial structure upon the original sound foundations rather than to do anything in the way of reconstruction. It is the desire and purpose of the new management to fulfil the purpose of the old and, if there be building to be done, as it is hoped there may be, it will be done upon the old sound walls or by way of harmonious extension. To voice the best work and highest aspirations of Christian medical missions in the East; to be a strong bond of sympathy and fellowship periodically drawing the units together; to be an active stimulus to better work, both evangelical and scientific; to report progress, spread news, discuss methods, centralize thought and redistribute the same and to make record of scientific doings and discoveries, both here and abroad—in a word, to be the medium by which the Society as a body helps the individual and the individual helps the body, and to be the witness of our corporate vitality,—this, as in the past, is to be the future policy of the JOURNAL.

2. By the spirit of a periodical is understood the prevailing attitude of the same toward the world in which it lives, its natural reactions to external stimuli. If we were speaking of the same in a man we should probably use the word character, but that word as applied to a periodical, means something altogether different. Spirit is the correct word in this case.

There is no portion of our inheritance that we enter upon with greater satisfaction than the spirit of the JOURNAL as exhibited in its issues to the present time. Owing to the character of the retired editor (our honored President), to the Christian principles of the contributing body, to the scientific spirit of our truth-seeking profession, and to the harmony of Christian life, apart from theological theory; owing to a combination of these forces it has proved possible for the JOURNAL to develop a spirit which, at least, as to fellowship and tolerance, is rarely surpassed in journalism. We would have this spirit live and grow into the future. We would have such relationships exist between editors and contributors, between these and our readers, and between all and the world at large, that truth seeking and free discussion may be combined with gentle manners and tolerance, and strictest criticism be made helpful and acceptable.

And we would add in this connection that, in your service, the editors desire and invite your thorough criticism of their work, and though we expect you to be prompt to forgive our mistakes, we do not desire you to overlook them until we correct them, neither shall we intentionally overlook your mistakes until the same time.

3. In our last issue attention was called editorially to the necessity for strong contributing support if we are to have a magazine which will be to us all that the JOURNAL is intended to be, a magazine thoroughly representative of our work and efficiently helpful in the same; and we would add our strongest words in support of this which was evidently the ripest thought-fruit of the mature experience of Dr. Neal on laying down his editorial pen (or in this particular case, on closing his editorial type-writer,) to take up his even more honorable presiding hammer.

There is not a great number of us in the East, and few whose work is more than similar, some whose work is very dissimilar. Yet certainly there is not one of us whose thought-out experience will not add to the strength of the whole and to the efficiency of the individual. But beyond all this we are pioneers in a new country, a new land to scientific medicine, and the responsibilities and duties thereof are ours by our own act; indeed by our very presence. It is not sufficient that

we should say to ourselves, "We are too busy to record this or that experience or chance discovery." The facts of the busiest lives challenge the statement, and the jury will not acquit. The man who has the chance is the man to whom the chance becomes the duty. We are the first in the new field; there are things passing under our eyes monthly that no physician has ever seen before—of cases, types, symptoms, variations, and even diseases. Are our eyes open and do we see them? The chance is ours and so is the duty. When we see them, do we say so? The glory of giving anæsthesia to the world was won and lost by a man who saw and spoke and a man who saw and did not speak. And no excuse of work in church or hospital would ever in this world or the next have acquitted Morton of inhuman neglect had he allowed that work to interfere with his public demonstration of ether. The same duty presents itself to us in China year by year, and in years to come our profession at large and more will hold us to the chance we had and the duty done or left undone.

Are we "so very busy?" It is the Osler and the Treves who might count their minutes in gold eagles, and yet it is they who make time to see and tell the most.

But we "cannot specialize as they." There is not one of us who cannot do his whole work as well as now, and better, and yet be a specialist on some one thing in ten years' time, and, if he wish, an authority on the same. Suppose, for example, one of us should adopt the rule of getting and reading everything he ever saw on intestinal animal parasites and, while spending his usual time on all other cases, should yet never let one of these cases go by without the fullest notes, the most careful study, and the widest open eyes. How long could the dullest of us do that in China without seeing something that no one has seen before, something worth the telling?

But perhaps "we are retiring by nature," and what we do see may not be as worth the seeing as we think it, or what we say as worth the saying. Well! That is what we elect editors to decide, and the readers will be the final judges. And you may be very sure that, highly as we value good style, the JOURNAL may be trusted never to publish good style when to do so it must spend return postage on good scientific facts.

There is not one physician in China who works a year without seeing something well worth the telling, and, granted this fact, there is not one of us who does not once a year, at the least, face and perform or fail to perform a professional, intellectual, and moral duty of writing for THE CHINA MEDICAL MISSIONARY JOURNAL.

W. H. J.

There are times in the affairs of men when they ought to say something, know that they ought to say something, and yet have nothing really worth saying to say.

There are times when under the stress of extraneous circumstances the brain gets off the beaten tract and refuses, temporarily at least, to cerebrate on the old lines. We have all experienced them, and so will be able to regard with a sympathy akin to charity the mental spasms of a brother physician in this condition, especially if in the attempt to do his duty, he falls short of his editorial ideals. It is no time for platitudes; we get plenty of them when we go home, but as confession is good for the soul and keeps us as our black brothers would say from getting too "biggity," personally the writer realizes as none of his associates possibly can, that his inexperience and comparative newness to the missionary field overbalance the desiderata of geographical location and young blood; but time will tone up the former and eradicate the latter.

C. S. F. L.

We are deeply grateful to the friends in the field who have consented to take charge of the various departments, and to those who have taken time from the never ending professional duties to write us articles or send us reports of cases or the general report of their work and progress. They are an inspiration to us all, and especially to those who are in the more isolated stations. For them as for ourselves we thank you.

C. S. F. L.

With the rebuilding of St. Luke's Hospital, the Medical Association Museum expects to enter on a new lease of life and also, let us hope, of usefulness, and the Association may be glad to know that a new room has been provided in the new building for this neglected child.

A medical museum is not like others of its kind to be gaped at, and wondered over, by the "hoi polloi," but should be kept inviolate in the interest of research and study. Especially is this true in a country like China, where ignorance and superstition are not only ready, but willing to credit to foreign medical science most of the evil influences that human flesh is heir to. Although the museum is suffering from neglect, which has been the direct result of not having a proper place to keep it, the curator is still sanguine of being spared the pain of writing its epitaph.

C. S. F. L.

Hospital Reports.

Forman Memorial Hospital, Yeung-kong, Kwang-tung.

The people in and about Yeung-kong experienced a new sensation on October 20th, the occasion of the opening of the new Forman Memorial Hospital. The Northern Presbyterian Church has maintained mission work here for fifteen years or more. It is only within the last two or three years that a permanent out-station has been established. One former attempt was brought to an end through mob violence.

Before the troubles of 1900, the First Presbyterian Church of Jersey City, New Jersey, subscribed funds sufficient to erect a hospital. The erection was delayed by the disturbed condition of the country. This year finds one ward of fourteen beds for men, operating room, reception and other necessary rooms completed and ready for use. A ward for women is to be erected immediately.

Invitations to the opening were sent to the Christians in the city and the surrounding villages and to the officials. For several days previous to the opening all sorts of gifts were made by both Christians and officials. Notable among these were a large and handsome sign for the gate, three pairs of wooden tablets ten feet long, a large silk banner appropriately inscribed stating that spring fills Yeung-kong, and numbers of paper and cloth scrolls. The first and all of the last were from non-Christians.

At sunrise on the morning of the celebration, the inhabitants of the neighboring villages were aroused by the gongs and retinue of the civil and military magistrates who paid their respects. All sorts of interpretations were put upon its action; such a

thing never having happened before. The country was suffering for the want of rain, and some said the officials had come to the foreigner to pray for rain. Others said the foreigners were having some trouble and the officials had come to settle it.

The men's ward was used for the dedication service and was decorated with American and Chinese flags and with flowers and scriptural pictures. Cakes and tea were supplied for all. A feast was prepared for the officials and gentlemen.

The hour of service found the compound filled with Christians and heathen alike, curious and inquiring. It was impossible to find seats for all. Christians had come from all the villages within twenty miles of Yeung-kong. It was very gratifying to see so many gathered together. A very earnest service was held; several speakers taking part. At the close the principal magistrate was asked to formally open the gate of the hospital. The way was cleared, and accompanied by all the lesser officials he performed the ceremony. A string of fire-crackers, many yards in length, crackled in celebration of the event, much to the joy of the Chinese.

The officials and others were shown through the two foreign houses and hospital which make up the compound. Most of them had never entered a foreign house before, and they were greatly interested in the spring beds, stoves, microscope, typewriter, and other modern appliances, not the least being Funk and Wagnall's massive standard dictionary. The latter evidently impressed them with the fact that the foreigner is not adept at mechanics alone.

The effect of this occasion has greatly tended to break the ice between

the better classes and the foreigner. This has also spread in a greater or lesser degree to the lower classes. While there may have been an element of compulsory politeness on the part of the officials through imperial edicts, still their kindness and personal choice in appearing in full official robes with attendants apparently meant a great deal. The gentlemen were evidently pleased and spoke kindly. These latter govern the feelings of the people a great deal more than the magistrates who are outsiders.

The news that the civil magistrate had personally performed the ceremony of opening the gate of the hospital, was spread all over the city and surrounding country. That one fact alone has greatly raised the hospital and the foreigner in the estimation of the people.

Patients were admitted on the day following the ceremony. Four or five operations have been done and with apparently good results. From present appearances there will be more patients than one ward will accommodate.

Owing to the lack of rain, the patience of the people has been severely tried. Though we have been accused of preventing rain, still God has given us favor with them thus far.

W. H. DOBSON.

St. James' Hospital, Ngankin. St. James' Hospital of the American Church Mission, Ngankin, China, completed its first year of service on October 2nd, 1902. As the only hospital in the capital of the province and in a district some two hundred miles square, it has naturally met an urgent need. The new hospital buildings were erected at a cost of \$5,000.00 Mexican, and consist of a main two-story building with commodious dis-

pensary facilities, operating room, etc., on the first floor, and a large men's ward, with several private rooms, upstairs, besides which it includes a small detached two-story building which is used for women patients. Externally the architecture is strictly oriental, but the internal arrangements are all Western. The hospital with its imposing gateway forms one of the features of the city. It is situated on one of the best streets, at the very centre of population, and is on the same compound with the other work of the Mission.

The statistics for the year just ended are as follows:—

Out-patients:—

New cases (male, 2,768 ; female,	
507)	3,275
Old „	6,765
Total,	10,040

In-patients:—

(Number of beds 30.)				
Male	274			
Female	38			
Total,	312			

Out-visits 45

Operations:—

Under anaesthesia	348
Without „	697

Local Receipts:—

Entrance fees	\$552.28
Medicines sold	223.26
Board of patients	613.54
Medical fees... ..	228.00
Donations	326.00
Total,	\$1,943.08

Current Expenses \$2,268.82

Medical Students, training in English ... 4

Physician in charge:—EDMUND LEW
WOODWARD, A.M., M.D.

Chang-poo Medical Mission. The following statistics have been furnished and will prove of interest to our readers:—

STATISTICS, 1901-1902.

Number of medical missionaries	...	2
Students	...	12
Beds	...	100
In-patients, male	...	914
Do. female	...	132
Dispensary patients, male	...	2,558
Do. do female	...	535
Patients on itinerations, male	...	3,009
Do. do female	...	1,494
Patients at home, male	...	86
Do. do female	...	68
Total patients, male	...	2,644
Do. female	...	603
Total attendances	...	6,117

Operations: General, 399; eye, 99; obstetric, 7; dental, 400.

Local income: Sales and fees, \$554.12; foreign donations, \$133.92; native donations, \$8.23.

Local expenditure, \$1,245.93

Amputations.

Foot, 1, for gangrene.
Leg, 1, for malignant ulcer.
Finger, 2, for whitlow.
Penis, 2, for carcinoma.

Bone Operations.

Femur, caries, scraping, 1.
Tibia, sequestrotomy, 6; scraping, 2.
Lower jaw, sequestrotomy, 5; scraping, 1.
Bones of foot, scraping and gouging, 1.

Abdominal Operations.

Ovarian cyst (multilocular), removal, 1.
Appendicitis, opening and draining abscess, 4.
Intra abdominal abscess, between transverse colon and stomach, opened and drained, 1.
Perinephric abscess, opened and drained, 1.
Pelvic abscess, opened and drained, 1.

Bladder and Scrotum.

Supp. in scrotum, drained, 2.
Elephantiasis scroti, removal, 1.
Calculus in bladder, suprapubic lithotomy, 1.

Joint Operations.

Knee, supp. synovitis, drained, 3; aspirated, 2.
Wrist, supp. synovitis, drained, 1.
Knee, chronic synovitis, aspirated, 4.
Shoulder dislocation reduced, 1.

Rectal Operations.

Fistula in ano cut, 36.
Int. hæmorrhoids tied and most of them cut away, 16.

Operations, Various.

Thiersch grafting of ulcers, 18.
Removal of bullet, 1.
Excision of varicose filarial glands, 1.
Repair of harelip, 2.
Stricture of urethra, dilatation, 3.

Growths. (New, all removed.)

Simple:—

Cyst over hip, 1.
Myeloid tumour of tendon sheath, 1.
Papillomata, 2.
Cystic fibroid, 1.
Sebaceous cyst, 2.
Fibroma, 2.
Lipoma, 1.

Malignant:—

Scirrhus of breast, 1.
Epithelioma of penis, 2.
Epitheliomatous ulcer of leg, 1.
Epithelioma of scalp, 1.
Fibroid of paget, 1.
Rodent ulcer, 1.

Other General Operations.

Abscesses, etc., 263.

Eye Operations.

Cataract, simple extraction, 23.
Needled, 3.
Combined operation, 1.
Entropion, 36.
Peritomy for pannus, 5.
Pterygium, usual operation, 9.
Paracentesis for hypopion, 5.
Iridectomy, 3.
Other operative measures, 14.

Obstetric Operations.

(Outside of hospital.)

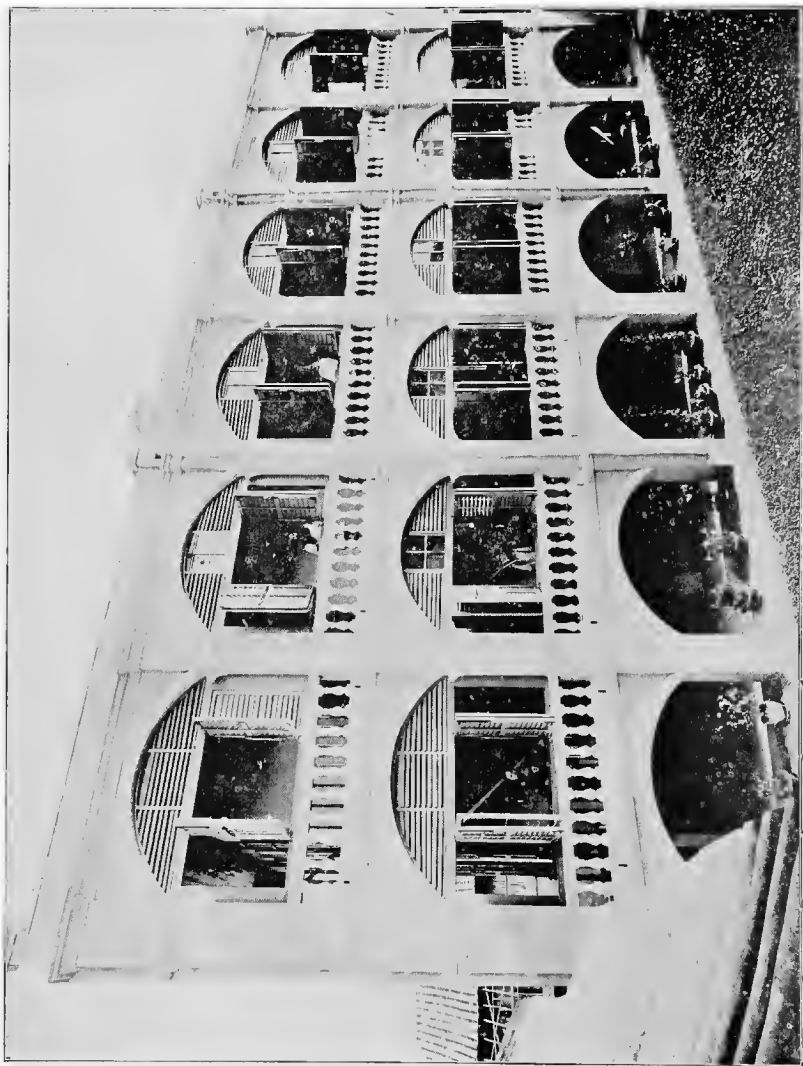
Obstructed labour, child dead, craniotomy, 2.

Impacted occipito posterior presentation, child dead, 1. Mother dying. Craniotomy and extraction (mother died twenty minutes after delivery from shock and exhaustion).
Adherent placenta removed by hand, 4.

Chloroform administrations, 186.

Cocaine for general operations (eye operations not counted,) 7.

Kellène administrations, 5.



Correspondence.

DEAR EDITORS: I send a photograph of the David Gregg Hospital for Women, Canton, China, in answer to Dr. Peake's request for suggestions for hospital buildings. Possibly it may help a little.

I have no halls. From every room one can instantly step upon a verandah.

In regard to the woman's hospital at Lien-chow, Mrs. Machle says: "The buildings are situated opposite the hospital for men, in charge of Dr. Machle, and are all enclosed by a wall." From this I inferred Dr. Chestnut had the woman's department of the Lien-chow hospital. I beg the hospital's pardon for calling it a ward.

MARY H. FULTON.

EDITORS JOURNAL: We used the individual communion cups last Sunday, November 16th, for the first time in our Peace St. Church, Foochow city.

It has been in my mind for more than two years to introduce this sanitary reform in our churches, but press of other work has hindered. We went so far as to get the set ready for our union communion service at our annual meeting, so making it an object lesson for our whole Foochow field.

We had six trays made of hard wood with shallow circular depressions to receive the bottom of the cup. We plan to have them lacquered with the white enamel used at home for bath tubs. We used white China cups, considerably smaller than the ordinary wine cups. They are sold here as children's toys.

Each tray held fifty-four cups, the size of the trays.

We prepared for three hundred, but some of the delegates and other friends returned home before Sunday, so there were only about 250 communicants.

The cups were distributed and collected in six minutes, and although it was the first time of using them, there was no trouble or confusion. We have decided that the best way of collecting them is for the deacon to receive them upon the tray as he walks back, after having distributed them to all in his isle. We cannot have the little brackets on the backs of the pews as they do at home, as our seats have movable hacks for use in Sunday School.

As soon as it was proposed to the pastor and deacons of Peace St. Church they acquiesced most heartily. We have heard no objections from any one. We heard several say, "Very good, much cleaner."

We are very glad that our Chinese friends were able to make the change so willingly and intelligently. Especially are we glad for this, since we heard that although at home the individual cups are now used in more than 1,000 churches, in every case a good deal of opposition has been encountered on the part of the church members.

Have we not been remiss as physicians in being so slow to urge upon the churches of China this necessary health measure? I, for one, plead "guilty."

The Pathological Society of Rochester, N. Y., in a meeting held December 7th, 1893, passed resolutions explaining the danger of communicating disease by means of the communion cup. Perhaps they were aroused to the importance of this matter by the fact that an outbreak of diphtheria among twenty-four families in that city, reported on officially by the

health officer appointed to determine its origin, was traced back to a school drinking-cup. It is easy to see that there is the same danger from the communion cup.

It is nine or ten years since the individual communion cups were used for the first time in America in the Central Presbyterian Church, Rochester, N. Y. That church has 2,000 members. Rev. Henry H. Stebens, D.D., is pastor.

KATE C. WOODHULL.

FOOCHOW, November 21st, 1902.

DEAR EDITORS:—The retiring editor of the JOURNAL asks if we will not try to help you now.

We wish to, but what will help and what hinder, may be a vexed question to settle.

As to my own work, it seems so ordinary; it never occurs to me it can be interesting to others.

The other day a rather unusual case was brought into the hospital. It was a child one day old. From the mouth protruded a tumor the size of a duck's egg.

The mouth was so widely opened I feared dislocation of the low jaw.

Without *chloroform*, after an incision in the tumor to allow the escape of fluid, thus giving me more room in the mouth, I excised the tumor from the right posterior part of the roof of the mouth.

It contained half an ounce of clear, glaring fluid in the upper half. The lower half, separated by a muscular septum from the upper portion, was smooth and firm. There was little hæmorrhage after the incision, and this controlled by pressure.

The jaw was not dislocated, but the child would not nurse. The lips seemed paralyzed. For several days it was fed from a spoon—milk poured into its mouth.

This, the eighth day, the mouth is almost closed, and it was able to nurse for a few moments.

The mother appears very happy. She had been married ten years, and this is her first child. This accounts, I think, for its spared life, notwithstanding it was an emaciated girl and so repulsive in appearance.

Perhaps others have seen such cases. I never had in one so young.

M. H. F.

CANTON, October 25th, 1902.

MARRIAGES.

November 1st, at the Cathedral, Shanghai, by the Rev. H. C. Hodges, M.A., ANDREW GRAHAM, L.R.C.P. and S., E., Church of Scotland Mission, Ichang, to JEANIE, daughter of the late Robert Weir, Esq., of Kirkcaldy, Scotland.

November 18th, at C. I. M., Shanghai, in the presence of Consul-General John Goodnow, by the Rev. F. A. Steven, Rev. FRANK ARTHUR KELLER, M.D., Chang-sha, Hunan, to ELLEN ELIZABETH TILLEY, both of the C. I. M.

BIRTHS.

October 10th, at Han-yang, the wife of Dr. GEORGE A. HUNTLEY, A. B. M. U., of a son (Frank Livingstone).

October 17th, at Kuling, the wife of Dr. HOWARD G. BARRIE, C. M., of a daughter (Winifred Agnes)

October 30th, at Chang sha, Hunan, Ragnhild B. Gotteberg, M.D., wife of Rev. J. H. O. GOTTEBERG, N. M. S., of a daughter (Ingleborg Kathrine).

November 9th, at Tainan, Formosa, the wife of Dr. JAMES L. MAXWELL, E. P. M., of a daughter.

DEATH.

December 2nd, at Wei-hai-wei, ROBERT, infant son of Dr. J. Norman Case, aged eleven weeks.

ARRIVALS.

October 7th, Dr. T. C. BRANDER and Dr. L. LEARMONTH, returning, I. P. M., Manchuria.

October 23rd, C. E. TOMPKINS, M.D., and wife, A. B. M. U., Sz-ch'uen.

October 26th, F. O'DONNELL, M.D., and Dr. C. W. SERVICE and wife, C. M. M., West China.

November 10th, Dr. F. F. TUCKER and wife, for A. B. C. F. M., North China.

November 17th, Dr. J. F. GRIGGS and wife, for A. P. M., Peking.

December 1st, Dr. M. R. CHARLES and wife, M. E. Mission, Wuhu.

December 13th, Dr. J. H. BEAM and wife, for the Reformed Church Mission, Yo-chow, Hunan.

DEPARTURE.

December 6th, Dr. G. W. GUINNESS, C. I. M., for England.



JAMES BOYD NEAL, M.D.
CHINANFU.

President of the China Medical Missionary Society.

The China Medical Missionary Journal.

VOL. XVII.

APRIL, 1903.

No. 2.

Original Communications.

[All papers must be in the hands of the Editors two months before date of publication to insure their appearance in the following number. The editors cannot undertake to return manuscripts which are sent to them. A complimentary edition of a dozen reprints of his article will be furnished each contributor. Any number of reprints may be had at reasonable rates if a written order for the same accompany the paper.]

LEPROSY WORK IN CENTRAL CHINA, ETC.*

By HENRY FOWLER, M.B., C.M.

Of all the diseases to which the human race pays toll none are counted so repulsive and loathsome as the disease of leprosy. The name has been a familiar one with us from our earliest days, and we have always associated with it everything that is horrible and unclean. Here in China we are familiar enough with all the infective granulomata. Specific disease in its exaggerated Oriental tertiary manifestations we meet with every day. Tuberculosis we are even more familiar with than are our fellow-practitioners in homelands. The reports of our hospitals testify to the prevalence in Central China of actinomycosis, anthrax, carcinoma, etc., etc. For one and all of these diseases we can offer some form of treatment. Whether it is by means of medicine or hygiene, or by the more radical method of operation we annually bring permanent relief to many a disease-stricken patient. It is our boast as medical missionaries that lack of means does not prevent even the beggar from benefitting from our Western-acquired knowledge. But to the leper we offer no such aid. He comes into our clinic and he at once makes us conscious of the limitations of science. Do what we will, he is not permanently benefitted by anything we give him. He invariably leaves us to spend his days an offence to his neighbour and a mass of wretchedness himself.

Nothing I can imagine is more humiliating or trying than for a thoughtful, painstaking surgeon to dismiss the leper patient and mentally to think of him as being "outside the camp."

*A paper read before the Central China branch of the China Medical Missionary Association, in November, 1902.

I take it for granted that we are all thoroughly interested in this disease. Most of us have had our theories with regard to its nature and treatment, and, maybe, some of us at one time or another have felt that we had the specific remedy for it.

I have been asked to say something of my own experiences and investigations in this disease. I do not promise to add a new chapter to the textbooks on the subject. At the same time I venture to believe that the opportunities for watching leprosy in all its forms, in our asylum in Hiau-kan, warrant me in taking up a little of your attention to-day.

Leprosy as we all know is a very "old-fashioned disease." If our historians are correct in their researches into the past conditions of life in ancient centres of civilization, there is good reason to believe that leprosy was a common disease long before the Christian era.

That old kingdom fed by the Nile, with its history carved in stone, records the presence of leprosy ages before greater Europe was populated by other than rude uncivilised hunters and fishers. Indeed the birth-place of leprosy is said to have been the land of the Pharaohs. In those early days migration and emigration were necessarily much more limited in extent than as compared with to-day. Who can doubt, however, that the scenes recorded in Holy Writ of Jacob's sons' visit to the land of plenty were repeated through the ages of Egypt's history.

It is not difficult, I think, to realise how the disease might spread from any given centre to the extremities of civilized lands. There are not wanting evidences at any rate of the march of the disease from Egypt through Arabia to India, Burmah, Malay, and China. It has been clearly demonstrated also that the disease found its way to the Grecian archipelago through Asia Minor in the fourth century B. C. It is worthy of note that many of the historians, both before and at the beginning of this era, refer very frequently to leprosy. We all know from our school histories how prevalent leprosy was in the middle ages. Every country in Europe at this date formulated methods of dealing with the disease, and we have still to-day evidences of the great number of asylums which were established outside our ancient cities. I shall later on briefly discuss the methods adopted by the old custodians of public health to control the spread of leprosy. In the meantime I desire to draw your attention to the map which I have prepared, showing the present geographical distribution of leprosy.

So far as I can ascertain the only countries where leprosy is on the decline are Norway, South Africa, and North America.

Starting then from the extreme north we find leprosy still in Iceland, Lapland, Norway, along the Russian border of the Baltic, in parts of Germany and parts of Spain and Portugal. It is common in most of the islands of the Mediterranean and in Greece and European Turkey. Passing to Asia, we note

the wide tract which it occupies in India, South and Mid China, Japan and Corea. From these places the disease can be traced to North China, Siberia, Persia, Turkey in Asia, etc. Chinese emigrants have taken it to Australia. In Africa the disease is endemic, and from there it has spread to Madagascar and the South Seas. South America and the West Indies are severely affected by it; the disease being endemic in the Antilles, Guiana, Brazil, and Columbia.

North America is now practically free from it. The last report from there gives a total of 278 lepers only.

Referring now particularly to the land in which we dwell. There is every reason to believe that leprosy has existed here for more than 2,000 years. In the earlier literature it is referred to as "Lai Fung," but is now everywhere known as "Ta Ma Fung."

I have made enquiries of missionaries and others and find that in South China leprosy is exceedingly prevalent. At Pakhoi and Canton the C. M. S. and A. P. M. have respectively built asylums for the reception of lepers. At Hangchow, again, the C. M. S. has a large leper asylum. Those working in the Yangtze valley report that lepers are more or less numerous in their districts. As regards Central China, we know from our own observations that there are many lepers here. Take a short walk along the native streets now and you will probably meet a dozen showing well marked signs of tubercular leprosy. Reports from Chungking show that there are very few lepers actually belonging to the city itself. Many of those met with come from a district some 300 *li* N. W. of that city. In the province of Sz-chuen there are many lepers, and they abound in Kansuh and Tibet. In North China, Mongolia, and Siberia, lepers are to be found, but they are not so numerous as they are in the southern provinces of this empire.

With the state of ignorance which abounds regarding the propagation of disease, and the conditions of life led by the average leper, it is not surprising to learn that in no place which missionaries or travellers have visited have lepers been absent. In every town and city the migratory Bohemian-like leper is sure to be met with. While this is the case it is also true that there are centres where leprosy is more prevalent and which I think may be regarded as the real "foci" of the disease.

In the vast "parish" for which the Hiau-kan missionaries are responsible there is such a centre. Ever since T'eo-k'u-wan has been known to the missionaries it has been associated with leprosy. The fact of such a colony was really the reason for building the Hiau-kan asylum.

T'eo-k'u-wan is quite a small place, but a few years ago the lepers formed a considerable percentage of the male population. So far as I can gather, on all sides of this place no lepers are known to reside. We have another old colony of lepers in Tung-shan. Fortunately the disease is dying

out there with the death of the leprous-stricken subjects. In our asylum at the present time we have six lepers from this very place, and their family histories are most interesting. I may later on have something to say about them. There are those here who have been in China many years more than I have and who therefore are able to speak with a wider experience of the treatment meted out to the leper by his fellow-countryman. The Chinese recognise the disease and have a fairly good idea of its clinical features. Many of them dread the disease and shun the leper; others again seem wholly indifferent and will permit the leper to pass in and out of their dwellings without rebuke. My predecessor records two lepers admitted into our asylum who were previously pastry cooks and plied their trade on the streets long after their faces bore witness to the condition. Only two months ago we took in a man of sixty-nine years who for years has been selling confectionery on the streets of Hiau-kan with his fingers dropping off one after another and his body a mass of ulcers. In Hiau-kan we have as out-patients at least a score lepers who come to us regularly for drugs and dressings for their ulcers, and who continue to engage in their avocations and dwell with their wives and families. In nearly every case they present unmistakable signs of tubercular leprosy. I am continually making enquiries regarding the presence of this disease in Hupeh, and from all I can gather the number is very great. If other provinces have the same proportion of cases then I see no reason whatever to doubt Manson's estimate that China has the largest number of any country in the world.

Although the disease is such an ancient one, and remedies innumerable have been given for its amelioration, it was not till 1848 that there was any treatise giving the clinical features of the disease. Since that date much has been done in the pathology of leprosy. The nerve lesions, the leproma masses and the lepra cells have been well described by Virchow, Vandyke Carter and others. In 1874 Hansen, the inspector-general of leprosy in Norway, discovered the specific cause of leprosy. By the discovery of the "*bacillus lepræ*" he brought the disease into line with other granulomata and gave a key to its method of propagation and probable cure.

Too much honour cannot be accorded to Hansen for his splendid discovery and for the results of his treatment. His admirable publication on the subject, translated by Norman Walker, of Edinburgh, repays careful reading. The best definition I have seen of leprosy describes it as a "chronic infectious disease caused by the *bacillus lepræ*, characterised by the presence of tubercular nodules in the skin and mucous membrane, or by changes in the nerves" (Osler.)

Briefly the various kinds of leprosy may be classified thus: If the *bacillus* attacks the skin we have *tubercular leprosy*; or what Hansen calls "*lepra tuberosa*"; if it attacks the nerves primarily, we have *anaesthetic*

leprosy, Hansen's "lepra maculo anæsthesia; if it attacks both the skin and the nerves we have *mixed leprosy*.

Some authors describe another form, viz., where the patients contract syphilis, either before or after leprosy nodules have made their appearance—to this they have given the term *syphilitic leprosy*. It seems to me quite unnecessary to add this latter class. The leprosy itself can always be identified with one of the above three forms and the syphilis has distinct lesions of its own which readily yield to its specific treatment.

I have brought over for your inspection eight lepers bearing characteristic lesions of nerve and skin. The question which naturally arises in our minds on seeing them is, "Why should the bacillus in one case select the nerves and leave the skin unattacked," and on the other hand, "Why should the skin be primarily selected and the nerves be free from the onslaught of the enemy?" Some have thought that there are two very similar but not identical bacilli in leprosy, one selecting the skin for attack, the other the nerves.

It has been pointed out that in tubercular leprosy the bacilli are more numerous but the poison they secrete does not injure the patient to any great extent. On the other hand, in anæsthetic leprosy the number of bacilli are very much fewer, yet the patient is so susceptible to the ptomaine manufactured that it sets up violent inflammation of the nerves. In the case of tubercular leprosy the nerves are not visibly affected. Another question arises, "Is the inflammation in the nerves really due to the poison or to the bacilli themselves?" Hansen and other observers state that in the nerves the bacilli are found partly in round cells, which lie around the vessels and between the nerve fibres and partly in the cells of Schwann's sheath. By reference to the diagramme of a cross section of a leprous ulnar nerve which I have drawn, you will observe these broken down granules in the cells. It will also be noted that the axis cylinders are wanting in many of the nerve fibres. The significance of this will be found later on. This question of the nerve lesion has been a royal battleground with pathologists. Impey, who had every opportunity of verifying his assertions, states that he has never seen the bacillus in the nerves of a PURELY anæsthetic leper. The hypothesis of those agreeing with him is that the nerves are affected by a ptomaine set up by the bacilli in other parts of the body. In China it is next to impossible to investigate this point for two reasons. First, the purely anæsthetic leper is hard to get at. When his case is diagnosed he will not immediately come into the leper home, and when at last he does make up his mind to come he is the subject of mixed leprosy. Secondly, suppose we get our anæsthetic subject into the home and desire a section of nerve tissue: we meet with a blank refusal. Should the man die at this stage of his disease we are prevented by the custom of the country from holding a "post mortem."

Over all the old theories as to the causation of leprosy we need not now wait. Hansen's discovery of the bacillus lepræ shattered these at one stroke. A question, however, arises which is worthy of discussion. "Where does this bacillus lepræ come from" and "how does it find an entrance into the body?" With regard to the first question it may help us materially to know that up to the present time no medium has been discovered for the continued cultivation of the bacillus. Some have claimed to have found such media, but they have not been accepted by the general body of pathologists. Another well-established point to which a pile of literature before me bears witness is that the bacillus lepræ will not grow outside the human body.

As to the second point—unlike syphilis, and corresponding with tuberculosis, we have nothing in leprosy to indicate the seats of the primary infection. We are led to suppose that the bacillus or its spore may enter the body in the food, in water, or in air. Some authorities absolutely affirm that it can only enter the body through an abrasion of the skin or mucous surface. On this question I have collected quite a variety of opinions. The medical journals during the last few years have had numerous references to this point.

If I had time I should like to discuss the theory raised by Virchow, and at a more recent date by Jonathan Hutchinson, as to the propagation of the disease by eating dried fish. My own opinion I may frankly say is decidedly against theory. From the histories of the cases which we have admitted into our Hiau-kan asylum I am persuaded that leprosy is oftener spread by actual contact of the bacillus with a broken surface. I do not think, as some do, that the bacillus is capable of passing through unbroken epithelium, but the question of infection by insect bite is certainly worthy of consideration and research. Numerous ways will suggest themselves as to how infection can be brought about in China. When I first took charge of the Hiau-kan leper home I was horrified to find guests smoking from the water-pipes of the inmates. No separate basins were used for the food of non-leprous servants. The lepers mixed freely with the servants and had the run of the kitchen, and I have actually seen relatives sleeping in the same bed with lepers. The Chinese get very slack when supervision is removed, and the absence of a medical man from the station was quite sufficient cause for them to revert to their old habits. Of course we quickly altered all this, and now I think it is fairly well understood that it is the duty of our leper inmates to protect their fellow-men.

If these things take place in an asylum for lepers what can be expected to take place outside its walls? The wonder to me is that leprosy is not much more prevalent than it is. There must surely be some strong protection offered to many people, otherwise how account for the immunity of the

non-leprous in such a focus of leprosy as T'en K'u Wan has been shown to be? As a matter of fact there are predisposing causes in this disease, and a consideration of these is well worthy of study.

It is positively amusing to read some of the causes assigned. In a recent paper I see it suggested that lack of animal food predisposes; on the other hand, I read that it is due to eating a nitrogenous food. I think a more probable cause of immunity is the fact that the bacillus is a weak one and requires a special pahulum into which it can be introduced. It would seem indeed that the system of the recipient of the bacilli must be specially prepared for their reception. Insanitary surroundings, want of personal cleanliness, poorness of diet, want of warm clothing, particularly during the cold nights, constitutional or acquired debility,—these are all factors making up such a system as is suitable for the well-being of the microbe. Into such a system then the bacilli lepræ find their way by one or more of the ways already suggested. It is possible for the microbe to pass at once to such a situation as to command an unlimited food supply. Here it will develop, and within a very short time we may get the outward and visible signs of its presence in the shape of erythematous patches and early pathognomonic signs. Most observers, however, agree that there is a considerable interval of time between the entrance of the microbe into the body and its primary manifestations in the skin and nerve.

It is exceedingly difficult to fix the duration of this incubation period. Much has been written on the subject. Some authorities give two to five years, others even longer. In South Africa the incubation period has been shown to average just under two years. Gentlemen, it has been left for us to say and determine the average duration in China.

Impey has a very ingenious way of accounting for the presence of the various lesions of this disease. Briefly it is as follows: The microbe, having resisted all the attacks of the leucocytes, enters one of them and is carried into the lymphatic system. A patient with this bacillus in the system, contracts a severe cold, or meets with some injury which produces partial stagnation of the blood in the capillaries of the skin. Since the face, hands, and feet are furthest removed from the centre of circulation and are the most exposed parts of the body, the tissues are least able to resist injury or repel the attack of microbes. The leucocytes with their bacilli congregate at these congested areas and escaping from the vessels accumulate in the lymphatics and perivascular spaces of the part. In the partially stagnated blood the bacilli develop and multiply rapidly by fission. "If the bacilli thus retained are in the skin, tubercular leprosy follows; if they are caught in the nerves, the result is anæsthetic leprosy."

I entirely disagree with Professor Von Bergmann when he says that "leprosy can be diagnosed at the first glance." To diagnose an advanced

case of tubercular leprosy is easy enough—a man on the streets can do it—but the earlier cases of tubercular leprosy and even an advanced stage of anæsthetic leprosy may prove a stumbling stone to even an experienced observer. We learn by our mistakes, and I count it no disgrace to confess that I have myself admitted a man to our leper home whom I thought was a leper but whose symptoms cleared up quickly with K. I.

A glance at the cases I have brought before you will convince you of the difficulty. You will not mistake the lion-like heavy-browed ulcerous individual, but two years I ago was sorely puzzled with one of the anæsthetic cases. I have even been on the point of sending him home as “a case of mistaken identity.” To me it has been of great assistance to remember that the primary symptoms of *lepra tuberosa* are of a toxic nature.

Inquiry into the history of a case often brings out the following information. First there was a period of occasional rigors with rheumatic-like pains and curious heaviness and stiffness of the limbs. These were combined with general malaise. The patient was thoroughly below par. Some of our inmates confess to having had initial symptoms of dizziness, dullness almost amounting to stupidity, and fever with profuse sweating. It is not uncommon to have epistaxis as a primary symptom. Only last month I had a case among the out-patients answering to this description and which the man himself, on account of the accompanying rigors and sweating, had diagnosed as “*Pi Han*” (malaria). Both my assistant and I were on the alert, having met with this epistaxis in several recent cases of leprosy. We looked for local symptoms and sure enough found the characteristic erythematous patches on the head and arms. The areas of this primary rash are often very small, but I remember a patient where the patches were very large and scattered all over the face, back, chest and buttocks, with a few patches on the thighs. After the rash has disappeared the patients say they feel quite well and are ready for their food. One man recently informed me that at this stage “he felt better than he had ever done in his life.”

Nothing is left of the rash but a *slightly* darkened area. Probably on the white skin of an Anglo-Saxon the changes in the pigment would be more apparent. It seems to me if we, in our out-patient clinics, could diagnose this early stage of the disease and could isolate the case, say by sending it into a home specially established for lepers—and could hit on the treatment necessary for the destruction of the microbes invading the skin, that we should have the best chance of preventing the further stages of the disease. The bacilli are assuredly in the system, but presumably they are for a time quiescent. Unfortunately the patient either does not come to you at this point, or if he comes, unless our experience in leprosy is considerable, we pass it unnoticed or ascribe the condition to other causes.

At a shorter or longer period the bacilli lepræ become active again and a renewal of hyperæmic patches occur. In the earlier condition the erythema disappeared under pressure; now it no longer does so. Attack after attack occurs, fever and profuse sweating accompanying each onslaught of the enemy. The bacilli multiply by the million in selected areas and form the unmistakable tubercle or leproma.

This condition I venture to call the "secondary stage" of the disease. I have not time in this paper to go into details concerning what for my own convenience I have termed the "tertiary stage"; such information can be obtained from any good text-book and can be observed in the out-patient department of our hospitals. Suffice it here to say that the accumulation of bacilli with their *débris* gradually blocks up the arterioles and venioles of the tubercles, causing, by their presence, paralysis of the terminal twigs of the cutaneous nerves of the tubercles and consequent anæsthesia of the part, destruction of the hair bulbs and extrusion of the hair, obliteration of the sweat ducts and drying of the skin, and finally necrosis and sloughing.

It is now acknowledged that climate plays some part in determining the form of the disease. Thus in cold climates the proportion of tubercular cases is always higher. In the matter of temperature Central China is a kind of half-way house. We have it extremely hot in the summer and register a low point in winter. You will not be surprised therefore to learn that about one-third of our inmates show tubercular symptoms, another third are of the anæsthetic variety, and the remaining third are of the mixed type. As already intimated there is much dispute as to whether the primary manifestations of the anæsthetic form of leprosy are due to the bacilli or to their secretion. All we know definitely is that interstitial neuritis is set up in the exposed part of the nerve. The nerves generally affected are in order as follows: In the arms—the ulnar, the radial, the median, and sometimes the musculo spiral; in the leg—the peroneal and the tibial; in the face—the facial branches of the fifth and seventh. The diseased part of the nerves becomes swollen and soft. There may be one or many such swellings in the course of the nerve. Sometimes part only of the nerve fibres at these nodes is inflamed, in other cases the whole huddle may be affected. If only a few of the nerve fibres are destroyed, then the effect on the tissues may be but slight and only a numbness is felt. On the other hand, if the fibres in a mixed nerve are destroyed, then there follows of course complete loss of nerve power and a disorganization of the tissues supplied by the nerve.

Most of the lepers in our asylum show flexing of the fingers brought about by the irritation of the nerve supply of the muscles. In every case the little finger is first contracted, followed rapidly by contraction of the ring finger, and more slowly by the middle and index finger and lastly by the thumb

Atrophy of the muscles and adipose tissue follows, so that you will find the hands of some of the lepers outside, contracted, emaciated, and the bones more than usually prominent. This condition in some cases appears to remain "in statu quo," or if the nerve is seriously injured we get necrosis of the bones and consequent breaking down of the tissues. I feel greatly tempted to enter more fully into this form of the disease; for to me it is an intensely interesting study. I find, however, that my paper is getting over lengthy, and I must forbear. Allow me, however, just to mention a few interesting points which are really worth discussion:—

1. To what is the contraction of the fingers and toes due?
2. Why is the disease nearly always bilateral?
3. What is the reason, in certain cases, of the apparent arrestment of the symptoms?
4. What part does heredity play in leprosy?

Perhaps if you will give me an opportunity I may have something to say about these questions at a later date.

You will notice that in both forms of this disease there is ultimate breaking down of the tissues. It is from the tubercular leprosy ulcer, however, that most danger is to be feared to the populace. The discharge from this form of ulcer teems with the bacillus lepræ, and it is to this ulcer that we must direct our antiseptics and disinfectants.

The prognosis of all forms of leprosy is always grave. Here and there one hears of spontaneous cures, and drugs and massage sometimes prolong life somewhat. The constitution of the leper at the best is undermined, and intercurrent diseases carry off many of them. The average life of a tubercular subject in our asylum, from the first manifestations of the disease, is nine and a half years. The life of the anæsthetic subject is prolonged a year or two more.

Sudden changes of weather tell severely on all the inmates. They seem to dread the hot weather even more than the cold. After a sudden change of heat to cold, or vice versa, I invariably see "the beginning of the end" in one or more of our people. We have been particularly unfortunate this year, having lost by death more than a third of our inmates. The cholera in the early summer found them an easy prey, and there has been a succession of deaths ever since. The curious thing in connection with these losses is the fact that they were all cases of tubercular leprosy. When we speak of treatment we enter into a region, which is a regular Tom-Tinkler's land! Drugs without number have been administered for the cure and relief of leprosy. So called specifics have appeared and continue to appear in regular succession. Alas! each remedy in turn has had to be cast aside as useless.

Your humble servant has run through his patients and stands to-day a defeated, a wiser and sadder man.

In seeking to benefit one patient we have to keep in mind the continual presence of a most persistent foe. The bacilli have either to be wholly destroyed or rendered incapable of inflicting harm on the tissues. Whatever drugs then are given, must be able to overpower the bacilli *lepræ* and at the same time do no injury to the patient.

While we await the discovery of such remedies, duty demands that we ameliorate the condition of the lepers as much as possible. We have also by precept and practice to educate the people to the necessity of isolation of the leprous subject. In doing this we point to methods adopted by our forefathers in the middle ages. Success followed their treatment and the result is that to-day only sporadic cases of leprosy exist in Great Britain. Norway is adopting the same plan and the probability is that within a few years not a single leper will be left there. South Africa and North America are also working on these lines with the same success. We sadly need a medical missionary who has ability and leisure to write a series of leaflets and pamphlets setting forth the dangers of infection from such a disease as leprosy. It is by such means that the China of a few generations hence will have learned to care for her sick and diseased and lunatic.

It will be generally recognised that the management of a home for lepers makes no little demands on patience and effort. This is specially the case if one is anxious to keep out of the ordinary Chinese ruts. The one in charge has to possess many of "Father O'Flynn's" virtues, and like him too he needs occasionally "to coax on the aisy ones" and "use the stick to the lazy ones." It is only by continually plodding away that we obtain the wished-for cleanliness of home and inmate.

I cannot close this paper without making reference to what I may call "The spiritual aspect of leper work."

My experience is that the inmates are wonderfully responsive to any interest shown in them. From my daily contact with our lepers, I have got to know each man pretty intimately—I have tried indeed to be a kind of father to them—and my efforts for their well-being have been rewarded with a wealth of affection which has often amazed and humbled me.

Nor are they less responsive to the claims of the gospel. I know of no work so fruitful as this work among lepers. It would seem as though their very helplessness and suffering brought them into more than usual intimacy with the Lord Jesus Christ. Some of these men that I have brought to you to-day have an appreciation of divine things far exceeding anything I have seen elsewhere in China. Our lives are enriched by the memory of many who are now released from their poor diseased bodies and have entered into that rest which belongs to the people of God. Seeing that this work of evangelis-

ing among the sick and suffering is the primary object of our residence in China, what can we do but rejoice that we have been given the privilege of meeting with, and ministering to, these men who are so grievously afflicted.

London Mission, Hiau-kan, near Hankow.

SOME EXPERIENCES WITH PATIENTS BREAKING OPIUM.

By ELLIOTT I. OSGOOD, M.D.

The Chu-cheo opium refuge was not very willingly opened. Older missionary physicians had recommended letting this work alone as not very satisfactory without special equipment. But the Chinese around here did not share that sentiment. There were opium smoking enquirers and back-sliding Christians who wanted to try again. These were directly in the missionary line of activity and could not be refused. Then if we accepted one opium smoker how could we refuse another?

The work did not increase greatly until this spring when the opium crop failed and rice was high. It became a matter of good business policy to break off. Just before we closed the work for the summer the head of the chair "hong" made application and brought in four coolies with him. These were followed by other applications, but we put them off till fall. During the year 1901-1902 there had been about twenty patients under our care breaking off from opium.

The indications were so strong that we made special preparation in study and drugs, looking forward to an increase in this line of patients. Dr. Jennings, of Paris, has published a very full discussion, the magazines now and then have given good articles, but the usual medical work is barren on this subject. Drs. Beebe and Macklin have had considerable experience and can furnish good prescriptions. This is doubtless true of many missionary physicians in China.

This city not being large, there never has been a call for a hospital work of any size. My in-patient rooms are similar to Chinese buildings in structure. The two available rooms can comfortably accommodate a dozen patients. Nanking is only forty miles away, and all major operations are sent there. Our clinic averages perhaps fifteen patients a day at most. Our quarters are not at all favorable for patients breaking off from opium.

There was one month of rushing business. It has now fallen off to more manageable proportions. The five men from the chair "hong" who broke in the spring had all broken clear, save one, and their success advertized the work. October 28th, nine men entered in one day. Eight of these were connected with the coolie "hong" and included both the manager and his younger brother. A gardener entered the next day. Two days later two farmers entered, one of whom was taking daily one ounce of the raw drug

and the other six-tenths of an ounce. Later some teachers entered, among whom was the dissolute son of a former Nanking military official.

My policy was to give each patient four pills daily of either Dr. Macklin's or Dr. Beebe's non-opium prescription and supplement this at the time of the craving or other symptoms, with *glonoine*, *sparteine*, *digitalis*, *passiflora*, the electric battery, and such other remedies as were indicated. In some cases *morphine* was necessary. I always gave this in combination with *atropine*, usually hypodermically, and noted with satisfaction that it never increased the length of time before the craving was overcome.

The craving ceased in nearly all cases at the end of three days. When they secretly obtained the raw opium and ate it, the craving ceased the third day from the time they last obtained it. In the two heavier cases who were taking six-tenths and one ounce opium daily, the craving was longer in leaving. These men, however, took the raw opium, and the craving did not begin till the second day. Then it was hard, and they suffered terribly. It took six days before their craving ceased. Some of the other patients were given *morphine* and *atropine* in combination, and it had no effect upon the length of time before the craving ceased (three days.) These two patients had from one-half to one-fourth given of *morphine* daily until the sixth day. Since the craving did not begin till the second day, they having used the raw opium, and since they were taking such a quantity daily, I could not see any but favorable effects from the use of the combined *morphine* and *atropine* and only ceased its use when pain and the craving ceased.

Dr. Beebe's non-opium pill is as follows:—

R. Quinine sulph.	...	...	...	...	...	...	dr.	xii
H. ext. Cannabis indica	...	...	...	...	...	...	"	ii
" Nux vomica	...	...	...	...	...	...	"	x
Phosphate soda...	...	...	...	...	...	...	oz.	ii
								Make 1,280 pills.

Dr. Macklin's prescription is as follows:—

Quinia sulph.	...	...	...	...	...	...	gr.	ii
H. ext. Belladonna	...	...	...	...	...	...	"	$\frac{1}{2}$
" Nux vomica	...	...	...	...	...	...	"	$\frac{1}{4}$
" Cannabis indica	...	...	...	...	...	...	"	$\frac{1}{4}$

This makes one pill.

Some of the patients complained that the latter pill increased their craving. A change to the former satisfied them, while *glonoine* acted well on the restlessness and *sparteine* was a splendid heart tonic. These seemed to be the most vulnerable points.

We found a variety of accessories of great use. Even to have the same drug in different forms was helpful. The craving needed variety and variety helped patient to forget the craving. Electricity, galvanic and faradic, hot water bags, sweat-bath cabinet, massage, and even a gramophone helped while away those tormenting three days. We tried to meet every troublesome symptom, even though we gave the same remedy in two different

preparations. In most cases we are satisfied that the *glonoine* ($\frac{1}{100}$ grain doses) and *sparteine* ($\frac{1}{4}$ grain dose) alone would have carried the patient through as well as when augmented by the above prescriptions. But they were handy as a variety and did good service as tonics.

The patients complained of great restlessness and a sense of weakness and anxiety in region of heart, heartburn, vomiting and diarrhea, numbness and muscular spasms, painful erections, spermatorrhea, heavy rheumatic pains, distended abdomen and intense colic and sleeplessness. Their chronic troubles, so long silenced by opium, returned. Chronic bronchitis, dyspepsia, bowel troubles, rheumatism, tubercular symptoms, and liver troubles manifested themselves. Being a homeopathic physician most of my prescriptions will be of no interest, but these were some remedies used that are worthy of notice.

Passiflora, the tincture of the passion flower, is the finest remedy for sleeplessness we have used. For these opium patients two teaspoonsful divided into two doses was necessary, but for an ordinary person 10-15 drops will induce refreshing sleep. There are no evil after effects. With this remedy the opium patient almost invariably got sleep each of those first three nights when the craving was on. As yet we have heard of no other physician on China using it.

For the priapism a minute dose of *piERIC acid* was effectual and a homeopathic dose of *cuprum* usually was effectual in overcoming the muscular spasms. One man who was troubled with constipation enjoyed five grain tablets of *cascara sagrada* very greatly, eating several a day. Minute doses of *arsenicum* relieved the intense burning stomach pains. We naturally had to individualize every case and treat accordingly.

With the departure of the craving we found a very weak specimen of humanity on our hands whom we at once proceeded to build up. Our tonics usually consisted of *arsenious acid* $\frac{1}{20}$ grain, *strychnia sulph.* $\frac{1}{20}$ grain and *hydrochloric acid* one drop. Or *nux vomica* $\frac{1}{10}$ grain and *zinc phos.* $\frac{1}{2}$ grain. This dose was given three times a day.

We met one difficulty. They would not stay sufficiently long. The ordinary patient wanted to go home in ten days. Now we have them deposit a double fee. If they remain at least fifteen days and observe our rules, obeying our instructions, we return them one-half when they leave. It is having a very salutary effect.

The work so far has been very encouraging. After the craving has been broken, these patients have nothing to occupy their attention. They are in an impressionable mood and listen willing to the gospel when wholesomely presented. If they know characters they willingly read the Scriptures and Christian literature and they are never ashamed to tell of the treatment received while breaking opium.

Christian Mission, Chu-cheo, via Nanking.

CHINESE HYGIENE.

By ARTHUR STANLEY, M.D., B.S., Lon., D.P. H., Health Officer of Shanghai.

If prolonged national life is indicative of sound sanitation, the Chinese are a race worthy of study by all who concern themselves with public health. Even without the returns of a registrar-general it is evident that in China the birth-rate must very considerably exceed the death-rate, and have done so in an average way during the three or four thousand years that the Chinese nation has existed.

Chinese hygiene is the product of an evolution extending more than two thousand years before the Christian era. There are no Chinese sanitary laws like those of the Mosaic code, but the Taoist religion is largely based on health maxims, though lost among a mass of superstitious absurdities and spirit lore. In the 素問 Su-wen, a book which is 2,000 years old, the philosophy of the body and of health is fully developed in the old Chinese way. It defines sanitation as health preservation so as to live to old age. It holds that true sanitation is in conformity with nature's laws. Every one who attends to these can live to be a hundred years old. The Chinese know that in order to live long they must live moderately. They have two main laws of health which are very comprehensive, namely:

- (1). Restraint of all the appetites.
- (2). Cleanliness in house and person.

Regarding the attitude of the Chinese to modern public health measures it may be noted that their prejudices are strong. The Chinese are a people with a supporting belief in all kinds of drugs, charms, and spells while their medical methods are empirical and mostly founded on the fancies of the alchemistical religion of Tao. The Chinese drug-shops contain an immense number of drugs and preparations, are the most elaborately ornamental of all shops, and the Chinaman spends a large part of his income on medicines. It is not surprising, therefore, that modern public health measures, which are founded on organised common sense and from which the personal factor of the relation between doctor and patient, with all its fallacies, is eliminated, do not appeal acutely to the Chinaman. He is attracted only by the merest sense of so-called Western civilisation furnished by well-advertised patent medicines and itinerant quacks, in the sacred name of trade. As in diseases the least curable there are the greater number of drugs recommended as cures, so it is with the Chinese who, though ignorant of the real cause of disease, have a proportionately great desire for a multitude of drugs; the Chinese pharmacopœia is the largest in the world. In China therefore considerable breadth of view and treatment is necessary in hygienic measures. With a unsympathetic people like the Chinese, sweeping sanitary measures are difficult of operation, and though hygienic conversion is

hard, dragooning is still less effective, and any attempt to hustle the East is poorly rewarded. The processes of social evolution can perhaps be studied on broader lines in China than anywhere, on account of its particularly massive and concrete historical records; and the lesson appears to be that in many respects the methods of some centuries of practical experience are frequently confirmed as good by modern science. And it is by following out these methods in a spirit of scientific sympathy, tempered by an accurate appreciation of Asiatic environment, that the best results may be attained.

FOOD.

On seeing the Chinese house-wife washing rice in the nearest puddle most foreigners exclaim, 'What beasts these be!' The observing man, however, discovers that rice is not washed to make it clean but to free it from the fine particles of starchy matter which, if left, would cause the rice to boil to a glue-like mass. It is the subsequent boiling that effectually protects the consumer from any disease that might have arisen from washing in evil waters. The Chinaman eats and drinks little that has not been subjected to the temperature of boiling water or boiling oil, and is therefore largely preserved from typhoid fever, cholera, and other diseases which are caused by infected food. There is no food infection known which will survive the temperature of boiling water. The Chinaman is not a great fruit eater. He is such an excellent cook that he prefers foods in which nature has been improved by art. He abhors raw things as a rule. Raw oysters for example the Chinese will not eat, considering them 'too cold for the stomach.' Except under great stress he drinks no cold water but always tea made with boiled water and thus avoids water-borne disease. Regarding disease infection therefore the principles which govern the Chinese dietary are true ones.

Concerning the quality of Chinese food a European would generally say there is no "stamina" in it. Diseases, however, like rickets and gout, which are attributed to disordered metabolism, are conspicuous by their absence among the Chinese. Functional disease of the stomach and alimentary tract are less common than among Europeans, and the teeth of the Chinese are admitted by all to be exceptionally beautiful and good. Look at the clean-limbed muscular Chinaman of the fields. He is the picture of health and agile strength as he sings through the hottest or coldest day's work. Singing at work, which is practically universal through China, indicates a vital energy in excess of that required for the labour in hand. The weary worker has no song. A Chinaman planting lush rice-shoots on a summer day, with his bare legs in the mud, sings a pæan of nature exuberant.

Regarding food therefore, modern hygiene has little to teach the Chinese while he abides by the principle of eating and drinking nothing that has not been thoroughly cooked. He is apt, however, in a foreign environment to consume aerated waters and other unusual things, and suffers thereby.

HOUSES.

In a Chinese house the weight is carried on wooden posts; the framework and roof being first erected and the walls filled in afterwards. There are usually plenty of windows and other openings, and in the case of shops the front is entirely open, so that the workmen are practically all the day in the open air. The houses are closely aggregated and the streets as narrow as possible, a condition which tends to cosiness and warmth in winter by keeping out the wind, and cool in the summer by keeping out the sun. This with their peculiarly warm and at the same time light clothing is possibly the reason that catarrhs, bronchitis, and rheumatisms, which may be attributed to cold, are less common among the Chinese than among Europeans. The Chinese dwelling has plenty of natural ventilation. With regard to sleeping accommodation the Chinese closely resemble most of the rest of animal creation in getting into a small, close, warm place for sleep. It is probable, however, that impure warm air is less injurious than cold pure air. And during sleep less air is required than at other times; while the body during sleep is more subject to chills. Although bad smells abound near Chinese houses, smell is not a perfect test of unhealthy environment. There is little sewage from a Chinese house, for all excretæ are treasured up in water-tight vessels, in which fermentation is allowed to take place, producing manure for the garden and field.

The houses of the Chinese working classes are therefore probably healthier than those of the European working classes. Modern hygiene would require the proper paving of the site and immediate surroundings of the Chinese house, the provision of a curtilage to each house and greater width of streets. The greatest sanitary evil in China is undoubtedly overcrowding, everywhere admitted to be the worst of all unhealthy conditions and one that cannot be counterbalanced by other sanitary measures. It is here that modern sanitation is diametrically opposed to the Chinese method of closely herding together, which is the result of an evolution, influenced by a feudal environment, in which the people collected together, mostly within walls, for the purpose of mutual defence against outside marauders.

DISPOSAL OF REFUSE.

It is in the disposal of refuse that modern hygiene has the least to teach and the most to learn from the Chinaman. The principle of returning ordure and garbage to the soil is the only true and economical one. By this means alone can the energy residing in the soil be conserved. The water carriage of sewage, and its most modern treatment in mass by bacteriological methods, is a crude imperfection when compared with the Chinese method of returning all refuse to mother earth, which it replenishes and is at the same time purified by the most complete bacteriological processes. The upper layer of the soil is the universal purifier; it is here that the nitrifying and other

organisms reside which convert organic refuse into inorganic plant food. Before applying ordure to the soil the Chinaman as a rule allows it to undergo ammoniacal fermentation in pits and kongs. In this process the complex nitrogenous bodies are broken down into simpler ammonia salts, which is a stage nearer to the formation of nitrates by the nitrifying organisms; the latter being the only compounds of nitrogen which are assimilable by plants. These ordure pits and urine kongs are a characteristic feature of the Chinese landscape and give rise to the bouquet de Chine, which is one of the many sacrifices the Chinaman makes at the altar of agriculture. But besides improving the manurial value, these fermenting pits to a large extent kill any pathogenic organisms that may be present. The fields of China sufficiently demonstrate the great manurial value of human excrement, producing fruit, flowers, and vegetables in the highest perfection.

The main problem of sanitation is to cleanse the dwelling day by day, and if this can be done at a profit so much the better. The Chinese solved the question of economic sanitation long ago. While the ultra-civilized European elaborates destructors for burning garbage at a financial loss and turns sewage into the sea and also frequently into the water he drinks, the Chinaman converts each into a source of profit by using them for manure. He wastes nothing, while the sacred duty of agriculture is uppermost in his mind. And in reality recent bacteriological work has shown that fecal matter and house refuse are best destroyed by returning them to clean soil, where natural purification takes place. On the other hand, the typhoid bacillus, and to a less extent the cholera bacillus can live and even multiply in polluted soil, that is, in soil holding a larger quantity of organic matter than it can elaborate into plant food, while both cholera and typhoid fever can infect vegetables if infected ordure is directly applied to them. In China these two diseases are less frequently water-borne than derived from infected vegetable food. And in this connection it may be noted that typhoid fever is much more common among Europeans resident in China than among those in the home lands. This greater prevalence of typhoid fever in China would appear at first sight a strong argument against the principle of returning refuse to the soil, but it is more probable that the fault lies with imperfect details. The native doctor does not disinfect the stools of typhoid fever cases.

Inasmuch as ordure is disposed of by natural principles, there is little real sewage in China, so that there is no need for a costly and elaborate system of drainage. The numerous waterways and the aggregation of the non-agricultural population near them render artificial sewers to a great extent unnecessary. In the great cities near the mouth of rivers and on the deltas, the numerous tide flushed creeks perform the function of the sewer. These willow-grown creeks, which form so pleasing a feature of the landscape of the

Yangtze delta, when kept clear and deep, so as to be flushed twice daily by the most economical and effective of all flushing apparatus, the tide, are excellent sewers and save much expense of artificial drainage. If maintained clean and clear the creek is a perfectly legitimate and sanitary method of drainage, especially where there is little excremental sewage. And in the construction of these creeks the Chinese are masters of the art of irrigation. The motto of Li Ping, the great Szechuan engineer, inscribed twenty-one centuries ago in the temples among the hills above the Cheng-tu plain, 'Dig deep the bed, keep the banks low,' is as applicable to the whole of China as it was to the great irrigation works of the Cheng-tu plain.

It is in the construction of house drains and street sewers in the cities that modern hygiene can be of use. Down the centre of many streets in Chinese cities runs a trough of brick or mud covered with flag stones. Through the many places where the covering is imperfect can be seen a black fermenting mass, whose only chance of removal is afforded by a heavy fall of rain. The street sewers discharge into ditches which become the most noisome of septic tanks through blocking with garbage. In the cities, also, where agriculture is not the chief occupation of the inhabitants, garbage is allowed to accumulate. When divorced from agriculture, the principle of returning all refuse to mother earth does not flourish happily. Self-interest is the main-spring of good works, and in the cities it does not always pay to remove garbage to the agricultural districts; ordure, however, always commands a good price and a ready sale, and its exploitation in most Chinese cities is a lucrative business.

PREVENTION OF INFECTIOUS DISEASE.

The prevention of infectious disease is the chief function of modern hygiene. Notwithstanding the great mass of recent pathological research, which has been the only real advance that medicine has made since the days of Hippocrates, Jennerian vaccination remains the type of all that is best in preventive medicine. The Chinese, however, anticipated Jenner, for they inoculated with small-pox as a protection against severe small-pox when our ancestors were painting themselves with woad. The Chinese were intellectual giants by comparison in those days. The Chinese have seen most of the great nations of antiquity in and out and still remain a great people. Why has not China gone the way of the rest? The methods of living of the people must be essentially good.

The Chinese do not practice isolation of infectious disease. They have, however, been known to evacuate villages stricken with plague, and they frequently burn the clothing and bedding of persons dead of small-pox and cholera. The methods of modern hygiene, born of a true knowledge of the cause of infectious disease—notification, isolation, and disinfection—will

come into play when the Chinese medical man ceases to be a mere drug vendor and is received into the lap of science. This will take a long time. The Chinese are platonic rather than socratic in their methods of reasoning, deductive rather than inductive, and have not that aspect of mentality developed which assimilates the natural sciences readily.

DISPOSAL OF THE DEAD.

The Chinese method of burial compares to advantage with that of Europe. In China the burial rites assume much importance. The coffin is of very thick wood mortised together and varnished, so as to be practically air and water-tight. Prior to placing the body in it the coffin is half filled with lime. The coffin is rarely buried at once, but awaits prolonged funeral rites in a mortuary chapel or in the residence of the deceased. In the mortuaries the coffins can be seen in rows of hundreds and the freedom from disagreeable odour indicates the goodness of the coffining. The coffins are finally buried under a mound of earth or in a bricked tomb, but always above the level of the surrounding land. These are scattered through the landscape and, surrounded as they frequently are by trees and shrubs, usually form a pleasing natural feature.

The absence of cremation among the Chinese is notable, considering its popularity in other Buddhist countries, such as India and Japan.

CLOTHING.

The materials used for clothing by the Chinese are mainly cotton and silk. In hot weather the men do not wear hats and the workers little more than cotton drawers. The dress of Chinese women is perhaps the most modest in the world; the lines of the figure are rarely shown, though a well dressed Chinese woman is a model of neatness. In the cold weather they increase the number of garments and wear an outer garment padded thickly with cotton wool, which is very warm and at the same time light. The children become twice the size in winter and rarely suffer from cold. The cold weather clothing is considerably lighter, warmer, and cheaper than European clothing, and enables them to a large extent to do without artificial heat. Chinese clothing is more hygienic than that of Europeans, excepting the shoes of the women with small feet.

HABITS.

In Europe alcoholism is the greatest obstacle to sanitary reform, and the death rate is more increased by this and its consequent misery in the course of one year than in ten by all the infectious diseases. Drunkenness is practically non-existent in China. Opium smoking is perhaps the equivalent in China of alcoholism; the sedative effects of opium being more in keeping with the Chinese character than the temporary mental and muscular excite-

ment produced by alcohol, which is desired by Europeans. But in comparison with alcohol the evil wrought by opium is trivial. The opium habit is perhaps more nearly equivalent to tea-drinking or tobacco smoking. While alcohol causes disease of most of the organs of the body and is one of the chief causes of insanity, opium produces scarcely any changes that can be recognized post mortem.

The polygamous marriage system of China is good in so far as unmarried females are rendered few and consequently prostitution with its evil train of disease comparatively rare. Concubinage under a strict system must be admitted to be preferable to the flaunting prostitution of Europe.

CONCLUSIONS.

Though the Chinaman is sometimes spoken of as the most unsanitary of individuals, he would be a poor observer who would hold that Chinese sanitation is not better than that of mediæval Europe. Were China imbued with the true scientific spirit she would become perhaps a model of sanitation, because the methods of living of the people are essentially good.

The prolonged national life of the Chinese and their great population is an unanswerable argument indicating sound sanitation ; pestilence rather than war being the cause of the disappearance of the nations of antiquity, whose origin was synchronous with that of the Chinese. At the present day the thrifty millions of China overflow their own country and compete so successfully with the British and Americans that laws have been made in America and Australia forbidding the immigration of Chinese.

From a hygienic aspect many of the modes of living of the Chinese are better than those of modern Europeans ; for example, in the matter of food, disposal of refuse for the benefit of agriculture, clothing, and in the comparative absence of alcoholism and prostitution.

The two ancient Chinese sanitary principles, restraint of the appetites and cleanliness in house and person, are the shortest and most comprehensive summary possible of modern public health rules, including as they do most of what is essential in modern hygiene.

Antiquity in national life is good because it allows evolution to have full development. In social etiquette, for example, ceremonials have been gradually perfected through long periods of time, so that their modes of social intercourse are the most punctilious and refined. In general life it is admitted, by those who have frequent intercourse, that the Chinese gentleman is the most polite in the world. In a somewhat similar manner it is conceivable that the modes of living for the promotion of health have undergone evolution.

A SUBSTITUTE FOR "GAS" SUITABLE FOR THE TROPICS.

By J. PRESTON MAXWELL, M.B., B.S., F.R.C.S.

It must surely have occurred to many in the China mission field when confronted with a case which needed a slight operation, painful in itself, yet hardly sufficiently severe to justify the administration of *chloroform*, with its attendant risk and oftentimes unpleasant after effects, to sigh for the "gas" bag and cylinder of home practice.

And it is clear that the "gas" bag and cylinder can never suit many in this country, where rubber goods take an absolute delight in rapidly becoming unfit for use and the cost of importation and carriage is quite heavy enough.

And so the writer desires to bring under his fellow-workers' notice a comparatively new drug, which appears to yield the desired result, viz., *ethyl chloride*.

Although this drug can be administered on an open piece of lint, it is safer and better to employ a Breuer's mask. This consists of a face piece similar to that of a Clover's inhaler, with two openings fitted with spring valves set in horn. The inhalation valve is surmounted by a ball cup, while the exhalation is open to the air.

Its use is as follows: The patient having been prepared by abstinence from food for some hours, is placed in a recumbent position on the table. It is safer to do this, although the drug has been administered many times in a sitting position, and there have been no deaths that I know of, under its use, yet one or two cases of alarming heart failure in this position have been recorded. The heart should always be examined as under *chloroform*. Silence should be strictly observed, as it keeps the patient more calm and prevents distraction.

A piece of gauze having been inserted into the bulb (ball-cup), the latter is warmed over a spirit lamp flame, and 2 c. c. of *kélène* (the commercial form of pure *ethyl chloride*) are projected into the gauze. The mask is placed over the patient's mouth and nose and kept tightly adjusted so as to obviate the admission of air, except *through* the bulb. The patient is directed to breath deeply and slowly. As he passes into unconsciousness the breathing becomes quicker and may become irregular. The pulse is generally markedly slowed. More *kélène* is to be sprayed from time to time into the bulb; the quantity used being usually from 6 to 8 c. c., and thus granting an anæsthesia ample for small operations.

If the operation is prolonged, the mask may be lifted for a breath or two at intervals, and then reapplied. In this way anæsthesia may be kept up for a full half hour.

The patient wakes in from one to three minutes after the cessation of administration, and there is generally no nausea or vomiting.

Now as to its practical utility, a table showing the statistics of twenty-three cases is appended to this paper. I had never met with the drug before I came to the east, except as a local anæsthetic, and thus had to depend on printed directions.

My first case was a failure. The man, a strong healthy young fellow, felt nothing, but struggled and kicked hard. Feeling sure that there was some mistake in the administration, I lay down and took it myself, putting up my hand to stop when just at the point of unconsciousness, which occurred in about three quarters of a minute. I became unconscious, but was told that I laughed immoderately part of the time. Recovery of consciousness was sudden and there were no ill effects at all. This gave me the clue to the failure, and I proceeded to investigate further.

The following points may be laid down for its use :—

1. No air is to be admitted, except that laden with the drug.
2. In a small percentage of cases there is a slight muscular tremor, but not sufficient to interfere with its usefulness or prevent the performance of operation.
3. In a few cases there is excitement when emerging from the drug.
4. Young healthy men need a large quantity to successfully anesthetize them.
5. Old debilitated men take it the best of all, and to them it is a great boon, as they do not suffer from the subsequent "*chloroform* depression."
6. When completely under, the pupils are fixed and moderately dilated, the conjunctival reflex absent, but the laryngeal reflex is never completely abolished.
7. As there is not in every person complete muscular relaxation, a dental gag must be used when removing teeth.
8. Excitable or very nervous people do not, as a rule, take it well.

As to the sensations experienced: A few days ago I got my colleague, Dr. Howie, to administer it to me for the removal of a carious bicuspid which had been troubling me for some time. I had breakfasted at 7.30 and thereafter had seen out-patients up to 10.30 a.m. At 11 a.m. I lay down and had the tooth extracted. The sensations throughout were precisely the same as I have experienced under "gas."

There was absolutely no knowledge of the extraction, although I was said to have flinched a little at the actual moment of extraction.

This was almost certainly due to my having inhaled too little, as I have removed teeth under its use without any flinching whatever. Awoke suddenly, no nausea. Lay about ten minutes and then got up, walked to my consulting room, saw another patient or two, and then came home and took a hearty dinner.

Breath smelt of the drug for about eighteen hours. A more successful result could hardly be looked for, and I confidently recommend the drug to my professional brethren, as a great addition to our outfit for work in the East.

The only drawback is expense. An administration costs at the present time about twenty silver cents, but were the drug to come into anything like extensive use, this would no doubt diminish as the demand increased the supply.

Both drug and mask can be readily obtained by post from the agents in London, Messrs. Greef and Son.

STATISTICS.

Sex.	Age.	Amount used.	Length of time before Anæsthesia complete.	Operation.	Duration of Anæsthesia.	Behavior under Anæsthesia.	After result.	Remarks.
1. M.	35	10 c.c.	Never complete	Scraping of sinus in thigh.	3-4 min.	Struggled	No nausea	Due to faulty administration.
2. M.	47	10 c.c.	1½ minutes	Opening of inflamed hydrocoele.	4½ min.	Quiet	Slight nausea	
3. M.	45	10 c.c.	1½ minutes	Opening abscess of foot.	3 min.	Slight tremor	No	Fought like a demon on coming out.
4. M.	51	8 c.c.	2 minutes	Abscess of thigh.	3 min.	Quiet	No	
5. M.	26	8 c.c.	1½ minutes	Abscess over inguinal cord.	3 min.	Quiet	No	
6. M.	54	7 c.c.	1½ minutes	Large abscess of groin.	3 min.	Quiet	No	
7. M.	21	8 c.c.	2 minutes	Simple fistula in ano.	2½ min.	Quiet	No	
8. M.	19	8 c.c.	2 minutes	Abscess over patella.	2½ min.	Quiet	No	
9. M.	24	10 c.c.	1½ minutes	Abscesses in thigh and calf.	5 min.	Quiet	No	
10. M.	44	6 c.c.	1½ minutes	Abscess of thigh.	3 min.	Slight tremor	No	
11. M.	32	8 c.c.	2 minutes	Suppuration in sole of foot.	3½ min.	Slight tremor	Slight nausea	
12. M.	26	8 c.c.	1½ minutes	Scraping of leg ulcer.	2 min.	Quiet	No	
13. M.	39	7 c.c.	2 minutes	Abscess in sole of foot.	2½ min.	Slight tremor	No	
14. M.	23	9 c.c.	2 minutes	Ulcer of leg; Thiersch grafting.*	4 min.	Quiet	Slight vomiting	Cried bitterly when coming out.
15. M.	30	8 c.c.	1½ minutes	Abscess over tibia.	3 min.	Quiet	No	
16. M.	53	8 c.c.	1 minute	Scraping of phagedenic ulceration of leg.	4 min.	Quiet	No	
17. M.	45	8 c.c.	1 minute	Abscess of calf, counter opening.	4 min.	Quiet	No	
18. M.	24	7 c.c.	2 minutes	Abscess of calf, two counter openings.	3 min.	Quiet	No	Squint upwards and to left while under.
19. M.	32	7 c.c.	1½ minutes	Sepsis of leg, two abscesses opened.	3 min.	Quiet	No	Slight excess of bronchial secretion.
20. F.	31	5 c.c.	2 minutes	Removal of upper canine for facial neuralgia.	3 min.	Quiet	No	Five months' pregnant.
21. F.	31	8 c.c.	2 minutes	Incision and raising of periosteum of face, three stitches.	4 min.	Quiet	No	
22. M.	52	10 c.c.	2 minutes	Septic arthritis of knee joint. Arthrotomy.	5 min.	Quiet	No	Man in very broken down condition.
23. M.	31	7 c.c.	1½ minutes	Extr. of bicuspid.	3½ min.	Slight shivering	No	

*In this case the grafts were cut from the prepared thigh and the ulcer scraped while under the anæsthetic, and the grafts which had been placed in hot saline adjusted after recovery of consciousness.

LONDON MISSION WOMEN'S HOSPITAL, PEKING, 1902.

By LILLIE V. SAVILLE, M.D.

This is the first year that I have had charge of the women's medical work in our east city Mission. I expected much more work than I had had in the west, but this has not been the case. The falling off has been mainly in visits to patients outside. In fact I have had only ten calls from families other than Christians.

After the Chinese New Year, 1902, we started, in common with all the other Mission hospitals in Peking, to make a small charge to the out-patients, two hundred Peking cash. I think this charge has not materially diminished the attendances. The in-patients bring their own food and bedding, and wherever possible I make a small weekly charge for firing and current expenses. I have had very few subscriptions from the in-patients.

Our quarters are miserably inadequate. I see in the January number of the CHINA MEDICAL MISSIONARY JOURNAL the plan of my future hospital which I sent to the editor. I am sorry there is no word of explanation with it, for alas! the plan is yet only on paper, and I have no prospect of the hospital being erected this year.

My senior student, Mrs. Ch'ing, does very well now. She dispenses well, gives *chloroform* carefully, and can be trusted to prepare instruments and patient for operation. I can leave her in charge of the out-patient work too when I am obliged to be away. The two younger students have been only senior school girls throughout the year, and I have had but little command of their time. However they do all our dispensing, and I allow them to give the anæsthetic for minor surgery. I hope now to have them altogether in the hospital.

I have had some very interesting cases in during the year.

1. Wen Pao, school girl, aged sixteen, a rescued school girl, ill-nourished and undersized.—For some weeks had had eczema of the scalp; only latterly had the hair been allowed to grow. From June 6th-11th she had irregular fever, severe headache, copious sweats. Examination of the blood for the malarial parasite was negative. *Quinine* had little effect. There were no other symptoms, and physical examination revealed nothing till June 11th. Then the child was very ill, and a small patch of erysipelas was discovered at the back of the neck. This spread rapidly, and though the temperature fell to 97.8 the next evening, on the 13th, it was again 104°. On the morning of the 14th the whole of the right side of the face was involved, and the child's general condition was bad. The usual treatment, local and general, had been adopted from the time I was able to make a diagnosis, but with no effect.

June 15th, 6 p.m., I injected 8 c.c. of *antistreptococcus serum* beneath the skin of the abdomen. The temperature fell at once from 104.2 to 100.6 and the patient sweated copiously. The next morning she declared herself well, but as the temperature was 103.4 I injected another 10 c.c. Temperature fell at once to normal, but there were some signs of collapse—hands and feet cold and blue. Next morning the temperature was up again to 101°, so I gave *phenacetin*, gr. x., with some brandy, and this time the collapse that followed on the fall of temperature was somewhat alarming. However she rallied well, and the temperature never rose again above normal. The spread of local symptoms had been checked by the first injection; after the second they rapidly disappeared. Convalescence was delayed by an abscess developing the next week at the back of the neck. When the pus was evacuated recovery was rapid and complete.

2. Mrs. Lien, aged 26, admitted October 2nd.—Thirty-six hours previously patient had attempted to commit suicide by cutting her throat. She had entirely severed the thyro-hyoid membrane and the anterior wall of the œsophagus. The wound was very dirty and gaped quite one and a half inch. Below one looked down upon the vocal cords which acted well in phonation; far back and high up in the cavity was the epiglottis. Nothing was attempted that night, but patient was given sterile ice to suck to reduce the swelling and pain. She was fed by nutrient enemata six hourly. Next morning, with Dr. Cochrane's help, I performed tracheotomy as low down as possible. Patient took *chloroform* well, which was administered by Mrs. Ching. October 6th, after consultation, I decided to perform gastrostomy. Owing to the condition of the wound, union would be impossible for an indefinite time. Attempts at nasal feeding, which of course involved passing a tube beyond the wound in the œsophagus, had to be abandoned. The temperature did not rise above 100°, but the pulse was always frequent, and every night, about 3-5 a.m., became more so—132—and markedly irregular and intermittent. The relatives readily gave permission for any operation which might save her life. As it was a suicide case, and the husband has also taken opium, many issues were involved. On the morning of October 7th I performed gastrostomy (Frank's method). Drs. Cochrane and Stabsact Krummacher kindly assisting. Dr. Maud Mackey gave *chloroform*. The patient bore the operation fairly well, but never fully recovered consciousness. She died ten hours later; the pulse being imperceptible at the wrist some two hours before death; respiration failed only very gradually. Patient was never markedly cold nor cyanosed.

3. Mrs. Kuan, aged 31, was shot by robbers during the night of November 28th.—She was admitted at noon the following day. Her clothes were much blood-stained, but there was only a little oozing from the wounds when first seen. The wound of entrance was a small round aperture a quarter

of an inch above the left angle of the lower jaw. The wound of exit was a still smaller slit half an inch above the angle on the right side. There was not much swelling, nor tenderness on the left side. On the right side there was a good deal of swelling, bruising and tenderness over the bone, below the jaw, and pain on pressure over the larynx. No bone crepitus could be detected. There was no wound inside the cavity of the mouth or pharynx, carefully explored by finger as far as the limited opening of the teeth permitted. The patient said she had had no bleeding from mouth or nose, but there was some dried blood on the upper lip as if from the nose. She swallowed water easily, but not solids. The voice was natural, except for the difficulty of articulation through closed teeth. The wounds were carefully cleansed, and a little *iodoform gauze* pushed lightly in, and a bandage applied. Patient returned home December 6th, wound healed. No difficulty with swallowing. The tenderness, bruising and swelling on right side much better.

December 26th. Still some difficulty in opening and closing the jaws. Otherwise quite well.

4. I had also a distressing case of tetanus. Mrs. Li, a most miserable dirty tuberculous patient, with extensive scarring of chest and neck.

October 4th, I performed a free excision of left wrist for caries which involved each bone of the carpus, the proximal end of each metacarpal, and the digital extremity of the radius.

November 10th. Removal of glands and scraping of much diseased tissue in left axilla.

Patient made excellent progress in every direction. December 18th. In the evening some stiffness of jaws was reported, but patient had eaten well all day and temperature was not raised. I was unable to see her till early next morning when I found all the symptoms of tetanus in a marked degree, trismus, head retraction opisthotonus, constant tonic contractions, pulse very weak and small, urine passed on k'ang, temperature not raised, mind quite clear.

The slightest interference with the patient excited convulsions. When attempting to change the dressings I thought at one time she was dead; the spasm of the respiratory muscles was so prolonged. Injections of *morphia* gave only very temporary relief. At 1 p.m. I gave her a large dose of *anti-tetanic serum* beneath the skin of the abdomen; no improvement followed. She died at 8 p.m.

The wounds were last dressed on the 16th, and looked excellent. The patient had been having injections of *guaiacol*, deep into the tissues of the buttock, but these had been discontinued for a fortnight, owing to signs of an abscess which, however, had never developed. Owing to a difficulty in replacing our spirit lamp which had been broken, the needles for some days,

had not been boiled daily. The skin of the buttock was always washed with hot soap and water, and then with hot *hydrarg. perchlor*, 1-1,000, and another patient was receiving the injections at the same time, and in the same manner, and has remained perfectly well. The needles were not used for any other patients, and were always cleansed with *carbolic*, 1-20; still I cannot account for the infection in any other way. Is that possible with an incubation period of at least fourteen days?

I heard only this week that people have been asking my dispenser, in the west city, four miles distant, why I took out the heart of the woman who cut her throat! The body of the woman had to be at the *yamên* till the legal proceedings could be carried out. Doubtless it was thought my gastrostomy wound was a hole for removing the heart! I think these two distressing deaths are enough to account for the great falling of my work during the autumn and early winter.

Statistics.

In-patients, January 1st, 1902	...	...	...	...	...	...	...	8
Admitted during year	...	...	...	...	...	...	...	64
Opium suicides	...	...	...	...	...	...	...	4
								76
Operations under <i>chloroform</i>	...	...	...	...	...	...	...	34
Minor surgery, including 12 under anæsthesia	...	...	...	...	...	...	...	27

Note.—No fresh cases could be admitted for six weeks in the spring while I had scarlet fever, nor for two months in the summer when I was obliged to take a somewhat lengthened holiday.

Out-patients, new cases	...	...	...	...	...	...	...	2,306
Total visits	...	...	...	...	...	...	...	5,789

No statistics are kept of minor surgery, without anæsthesia, in the out patients' room.

Visits to patients' homes	78
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London Mission, Peking.



Medical and Surgical Progress.

Medical.

Under the charge of Robert T. Booth, M.B., B.Ch. R. U. I.

In this number of our magazine I wish to call attention to the discovery of a new parasite which has been demonstrated in the blood of several patients. A distinct train of symptoms follow infection. At present the disease has only been recognised on the West Coast of Africa or in patients who have lived there. By this discovery, which is a certainty, a new era has commenced, much needed light is cast upon obscure cases of fever hitherto classed under the title of malaria, and a new field of investigation is opened up. Though it may not fall to our lot here in China to find this parasite in the blood of our patients, still it may stimulate us to the more persistent and intelligent use of our microscopes in cases of fever which we meet from time to time.

This new parasite—a trypanosoma—was demonstrated in the blood of man some years ago, but it was not until last year that it came before the medical world as 'practical politics.' A case under the care of two doctors on the West Coast of Africa was demonstrated both there and in Liverpool to have trypanosoma in the blood. Later on in the year Dr. Patrick Manson, arguing from the symptoms observed in that case, diagnosed a case in a patient from the Congo and stated that the trypanosoma would be found in her blood. After many fruitless examinations, at length the investigation was successful and the parasite was discovered.

A brief description of the symptoms and the parasite causing them will not be out of place.

The most noble features presented by one case were:—

- (1). The chronic course.
- (2). The general wasting and weakness.

(3). The irregular rises of temperature, never very high, and of a relapsing type.

(4). The local œdemas.

(5). The congested areas on the skin.

(6). The enlargement of the spleen.

(7). Constant increased frequency of pulse and respiration (hurried breathing).

The facial aspect usually attracts attention. The face is distinctly puffy and flushed, eyes appear sunken, and the conjunctivæ watery. Also fullness of lower lids which pitted on pressure. Some œdema is usually present about the ankles, the skin pitting on pressure. Isolated patches of congestion of superficial capillaries are seen scattered irregularly. After pressure on these patches, the colour very slowly returned.

Varying with condition of temperature parasites are found in the blood. When the temperature is raised parasites are found in the peripheral blood, but when the temperature is normal or subnormal no parasites are detected.

In fresh blood the parasite appears as a very minute worm-like organism, very difficult to see with a magnification of 300 diameters. It glides fairly rapidly among the red cells, imparting very little movement to them. When the movements have slowed down one end of the organism is seen to be drawn out into a whip-like process—the flagellum; the other end is bluntly conical; attached along one side of the body is a transparent flange-like process—the undulating membrane; the body itself is thick and short, and granular in appearance. Near the posterior end is a refractile spot (vacuole).

The parasite usually is seen progressing with the flagellum, which

represents the anterior end in front, and at times, when an obstruction is insurmountable, it shoots backwards for a short distance with the blunt end forward. The parasite moves by wave-like motions, commencing in the flagellum and communicating along the undulating membrane; also by contractions of the protoplasm of the body. Manner of progression is screw-like; the body rotating around a longitudinal axis. In fresh preparations parasites appear to die in about three hours.

In specimens stained by a modification of Romanowski's stain the flagellum stains a light crimson, and can be traced from the anterior end along the margin of the undulating membrane to end near the vacuole in posterior extremity. A narrow streak of protoplasm, staining blue, can always be seen for some distance beneath the free part of the flagellum. The undulating membrane is usually unstained, but sometimes may take on a faint pink colour. The nucleus, lying a little in front of the middle of the body, is oval in shape, and stains dark crimson. A dark purple spot, 2.5u. from the posterior end, is known as the uncronucleus or centrosome. The flagellum is intimately connected with this spot. The vacuole lies anterior to it. The protoplasm takes on a basophilic reaction. The organisms "set" in a characteristic manner on a slide, the body being generally bent at an angle opposite the nucleus.

This parasite belongs to the same genus as those causing a variety of animal diseases. The symptoms are similar in most points. Whether any such condition exists in China is unknown. Those working in the more tropical parts may be able to say. At any rate we must all use our microscopes with more care as an aid to diagnosis of the various fevers we meet from time to time.

FREQUENT TAPPING IN ASCITES.

In the B. M. J. for January 17th Dr. Floyd reports a case of cirrhosis of the liver in a patient 67 years of age.

From July, 1900, to September, 1902, a period of 115 weeks, he was tapped 205 times. A record of the quantity drawn off on each occasion was kept after the 104th operation, which shows that the average amount at each tapping was $15\frac{3}{4}$ pints.

This case opens up the question of tapping v. operation in cases of ascites. Most of the cases of ascites which came under our observation here in China are combined rather with enlarged spleen than with cirrhotic liver. Will a like result be produced in both forms by tapping or by operation? I can recall several cases in which repeated tapplings have resulted in an apparent cure, i.e., no recurrence for months of ascetic fluid. In what way does aspiration act? It seems to be by setting up adhesions between peritoneum and the abdominal wall and the consequent establishing of collateral circulation. In the same number of the B. M. J. above referred to, an operation known as Talma's operation is noted. It consists of laparotomy and fixation of the omentum to the abdominal wall. Vascular adhesions form and a supplementary circulation is established. This is found to be of special value in cases of cirrhosis of the liver. Is there an opening for a similar operation in the case of ascites which we meet with so constantly in China? The method has been successfully tried in cases of tuberculous ascites. The operation being in itself simple there are practically no contraindications. It should not be postponed too long.

TREATMENT OF EPILEPSY.

It has recently been pointed out that in treating epilepsy with *bromides* a much quicker and more certain result is obtained by depriving the patient of all *salt*. It has been noted that *bromide* is much more active when ordinary salt is eliminated from the diet. The plan recommended is to put the patient on a milk diet, which represents two grams of *sodium chloride* per diem instead of fourteen which is the ordinary

amount for an adult. In the day 1-1½ litre of milk is given. A certain amount of vegetable may be added to the diet in some cases. Bread should be forbidden. On such a diet it seems that small doses of *bromide* have a very notable and immediate effect, so much so that care must be taken, lest the toxic effects of the drug rapidly appear. The number of fits is rapidly reduced.

THE INFRASPINATUS REFLEX.

To the already numerous reflexes one more has now been added. Steiner in the *Berlin Clinical Weekly* magazine draws attention to the fact that, if one taps a certain spot over the shoulder blade, on a line bisecting the angle formed by the spine of the scapula and the inner border, *outward rotation of the arm occurs with simultaneous straightening of the elbow.*

Skin Diseases.

Under the charge of KATH C. WOODHULL, M.D.

THE TREATMENT OF CHRONIC ECZEMA BY WATERY VAPOR.

The treatment of cutaneous affections, formerly regarded as contraindications for hydrotherapy, are in recent years treated with very considerable success. This is especially true of vasa moter and inflammatory disorders of the skin, as eczema, urticaria, erythema, and even ferunculosis and pustular affections.

Dr. Julius Fodor, in *Blätter für Klinische Hydrotherapie*, June, 1901, presents some interesting results of his personal experience in the treatment of eczema by means of vapor baths. Liebersohn, of Odessa, has recently published a report of the successful treatment of numerous cases of eczema, acne rosacea, lupus vulgaris, chronic ulcer, sycosis (not parasitic), acne vulgaris, and acne indurata. Watery vapor was employed at a very high temperature.

The editor adds, "We have for more than twenty years employed very hot water in the treatment of chronic eczema and with notable success. In one case a woman who had not appeared in public without gloves and with her face covered with a thick veil, because of a terrible eczema of the hands and face, was so nearly cured in four weeks that the skin had acquired nearly a natural appearance. The thick scales and

cracks had entirely disappeared. The skin was soft and smooth, though somewhat redder than normal. The treatment consisted solely of a rational dietary, consisting chiefly of fruits and cereals, general baths, and local applications for fifteen minutes three times a day of water as hot as could be borne. Similar results have been obtained in many other cases."—*Modern Medicine*, September, 1902.

RARE BROMIDE ERUPTION.

Dr. T. F. Wallhauser, in the May number of the *Journal of Cutaneous and Genito-urinary Diseases*, reports, with accompanying excellent woodcuts, two very instructive cases of extensive bromide eruptions of very unusual type. The first case was that of a girl of fifteen who, after a slight injury to one of her fingers, became melancholy and developed fits of hysteria; for this condition she received *bromide of potassium* in ten grain doses every three hours. The eruption located on both lower extremities, appeared about the third week of treatment as small vesico-papules, oozing and drying in yellowish green crusts, surrounded by a zone of inflammatory redness. The papules were disseminated and grouped, running together in places to form large patches. The crusts were very char-

acteristic, yellowish green in color; in thickness varying from $\frac{1}{8}$ to $\frac{1}{4}$ inch, irregularly circular in outline. The surface was traversed by deep sulcated lines, especially marked where patches formed. On removal of the crusts, which were firmly adherent, there presented numerous points corresponding to the papillæ, which were greatly hypertrophied. The second case was that of a woman, thirty-six years old, who had been subject to attacks of epilepsy for several years. For this disorder she had taken a proprietary medicine. One year after beginning with this remedy the eruption appeared. When this patient came under Dr. Wallhauser's observation she had been treated by her family physician for six months. The lesion was extremely painful and involved almost the entire circumference of the left lower extremity between the knee and ankle. Both cases recovered in from seven to ten weeks after the *bromide* was stopped, though in case II. the growths of the lesion by peripheral extension continued for some time after the *bromide* was discontinued. This, however, is not infrequently the case, as well as in iodide eruptions, especially where there is defective kidney elimination.

These two cases of Dr. Wallhauser's are of peculiar interest, and should be of value to all who are accustomed to administer *bromide of potash* in large doses, or over extended periods, for, as he says, on looking up the literature of the subject he was unable to find a case which would correspond in clinical description to either of his cases, and in this I can bear him out.

I am enabled, however, to add to his two cases a third, for, but lately a patient, a boy of seventeen, an epileptic, presented himself at the Vanderbilt clinic with a condition of the right leg closely corresponding to that pictured by Dr. Wallhauser in his two woodcuts. *W. T. D. Medical Review of Reviews*, November 25, 1902.

THE TREATMENT OF SKIN CANCER WITHOUT OPERATIVE PROCEDURE.

The *Medical World*, August, 1902, has an editorial on the use of external applications in place of the knife in the cure of cancer. We give an abstract of his article: It is strange that the removal of cancer without the knife is left almost entirely to the realm of the quack. It is time that the profession learn that they can remove the great majority of cancers of all kinds without operation and with less probability of recurrence than when the knife is employed. Not only the epithelioma, but also other forms of cancer yield to this treatment. It is easily applied by any competent physician; the cost is moderate, and the application and after treatment may be made in the patient's home or in the physician's office in a few moments.

Stelwagon asserts that the probability of recurrence is much lessened when the caustic method is used instead of the knife. The milder caustics are of no use; the stronger must be used, and with a bold hand, for more than superficial tissue is to be destroyed. Mild caustics in abundance and lavishly applied are worse than useless, strong caustics used timidly were better not applied. Three caustics have found favor in the hands of experienced men; named in order of their general acceptance we find *arsenious acid*, *caustic potash*, and *zinc chloride*. To the first and third Stelwagon is accustomed to add five to ten per cent. of *salicylic acid* in all cases where the skin is but slightly ulcerated. Where the cutaneous area is intact, *caustic potash*, in ten per cent. strength, is applied for a short time until the superficial layer of the epidermis is eroded, and then it is washed off before a caustic action has been made manifest. The arsenious has a selective action, in that it only attacks pathologic tissues when kept in contact a reasonable time, and never attacks healthy tissue unless the application is prolonged.

Zinc chloride destroys healthy and pathologic tissue alike, but acts more slowly on the former; it is generally combined with some such diluent as wheat flour, and the pain is lessened by a certain safe amount of *cocaine* being blended in the paste; five to twenty per cent. has been used. The famous formula of Bougard is used by many practitioners, and is commonly quite efficient. It is quoted as follows:—

Wheat flour	} of each	..... 4 drams
Starch		
Arsenious acid	} of each	..... 4 grains
Cinnabar		
Ammonium chloride	} of each	..... 20 "
Corrosive sublimate		
Zinc chloride crystals		..... 2 drams
Boiling water		..... 6 "

Dissolve the *zinc chloride* in the hot water and blend the first six ingredients in another mixture, then incorporate the two mixtures with thorough rubbing. More water is generally required, which may be found in the aqueous solution of *cocaine*. The paste should be as stiff as may be conveniently spread on cloth or lint. A little larger plaster is applied than sufficient to cover the growth. Considerable inflammatory reaction follows within twenty-four hours, and if the result be deemed sufficient the plaster is removed entirely; but if the action has not been deep enough the crust is gently scraped away and a new application is made. Poultices or ointments may be employed to remove the crust resulting from the first application of the paste, and this may take from one to three weeks.

Robinson has extensively employed a paste made of equal parts of *arsenious acid* and *acacia* with enough water to make it spread easily on cloth, paper, or lint. Marsden has experimented extensively, and uses two parts of the *arsenious acid* to one of the *acacia*, but does not apply it to more than one square inch of skin surface at a time. Such a paste is allowed to remain twenty-four to forty-eight hours, and is then removed

and followed by poultices or antiseptic ointments till the sluf comes off or the healing process appears. The moist antiseptic poultice generally brings the eschar away in five or ten days; the ointments act much more slowly. Excessive absorption must always be carefully guarded against. All these caustics are safe in judicious hands.

FINSEN'S METHOD IN PHOTOTHERAPY.

"Finsen, the originator of the successful treating of lupus by phototherapy, has recently taken occasion to criticise in *Le Medecin* some of the numerous lamps and appliances which have been devised for use in place of his own in the application of the actinic ray in the treatment of lupus. He remarks as follows: "This activity of inventors results from the fact that the powerful lamp I employ is costly, and insulation being expensive, my method can be employed only in hospitals and large institutions; but these attempts, made with a view to render the method less costly and more accessible to physicians in general, have not, so far as I know, produced any satisfactory results. The price has been lowered at the expense of a powerful light and its therapeutic effects. I can then only counsel those who desire to obtain the results which we secure in our institute to employ an electric force equal to about seventy ampères, and of a construction identical, and to make the séances of considerable length."

"Among the different devices designed to replace my own, Lortet and Genoud, Foveau de Courmelles and Trouvé employ the same light produced by incandescence. More original and more interesting is the lamp of Bang, who produces a different light. We cannot yet speak definitely of results of therapeutic applications of this light. It will perhaps lead us to specialize and to differentiate in the employment of light. It does not penetrate deeply, but the light is

interesting from a scientific view. It will serve to extend our knowledge relative to the therapeutic effects of light.

Finsen is now engaged in experiments for the purpose of testing the value of the various lights and devices invented by others. In these tests he will determine first, the bacteriacide power; second, the power to produce inflammation; third, the power to penetrate the deeper layers of the skin.—*Modern Medicine*, September, 1902.

Dr. James Braithwaite, of Leeds, England, in an article recently pub-

lished in *The Lancet*, attributes cancer to the excessive use of salt and calls attention to the fact that it is most abundant in those who make large use of pork.

Recent observations seem to show that cancer is a parasitic disease, and the probabilities are that the body is prepared for the entrance and development of the parasite by any influence or habit which lowers vital resistance and lessens the power of the tissues to defend themselves. The excessive use of salt may have a possible relation to cancer, and the same may perhaps be said about all wrong habits of life.—*Modern Medicine*, September, 1902.

The China Medical Missionary Journal.

VOL. XVII.

APRIL, 1903.

No. 2.

Editorial.

JAMES BOYD NEAL, M.D.

Dr. James Boyd Neal, President of the Society, was born in Eastern Pennsylvania in the year 1855 and educated at Yale, graduating in 1877. This was followed by a two-year course in the scientific school in New Haven, preparatory to the study of medicine, and this in turn by a winter spent in a bank to get a little business experience. He then entered the medical school of the University of Pennsylvania and graduated therefrom in 1883. He is thus a graduate of the most representative of all American colleges and of the oldest and deservedly best known of American schools of medicine, and stands among the ranks of those who hold that no form of intellectual and professional training is too thorough to be best suited to medical missionary work.

In that same year, 1883, Dr. and Mrs. Neal came to China and settled in Teng-chou, near Chefoo, until 1890, when they were transferred to Chi nan-fu. In this place they have worked ever since, with the exception of the time consumed in two trips home and a year of substituting in another station in Shantung. So his whole professional life has been spent in this one province, in which it is well known among us that he is very naturally greatly interested and with which he is thoroughly identified.

As have most other men of ability, Dr. Neal has a hobby, a part of his work in which he has invested more of his big heart than any other, and that is saying a great deal when we remember the heart and the work of which we are speaking. I am referring to his devoted interest and success in the training of medical students. Years ago, it seems to me, I heard him speak on the subject in Philadelphia, and I easily remember the earnestness of his address on this subject and the seeming soundness of his ideas. So far four classes have passed through his hands, in two

of which he was assisted by other physicians in Shantung, and twenty odd men have been trained by him, the majority of whom have done very creditably. In pursuance of the old interest, Dr. Neal's attention is centered at present in a proposed union with the English Baptist Mission of Shantung in educational work, one part of the scheme being to unite in a medical school, which will be far more efficient than anything so far established in that province.

It would be superfluous to write to his fellows in China of the personal characteristics of our President. He is well known to most of us as physician and man. Besides all this, personalities are not usually pleasant, whether intended to be so or not so intended, and from an incident that I also remember in connection with that same visit to Philadelphia, I am led to believe that Dr. Neal is one of those genuinely modest men who by nature are averse to personalities. He was showing us a specimen of those complimentary effusions, by means of which the Chinese are accustomed to express appreciation, regard and other sentiments in a personal and, to say the least, very flowery fashion. The particular effusion in question was in the shape of a flag inscribed in gold characters and was large and handsome. It was much admired, and inspired great interest. Many questions were asked, and finally a translation called for. The poor Doctor plead difficulty of rendering the character, etc., but it was of no avail and I have not forgotten to this day the delightful wretchedness of Dr. Neal when trying to slur over those honeyed phrases and impress upon an American audience that nothing meant anything, and everything meant nothing.

So we shall not go into personalities with the Doctor a second time, but let us rather collectively as a Society take pride in our President and heartily congratulate ourselves that its welfare is entrusted to so capable a servant, and let us give him our co-operation and allegiance in whatever plans he may make for further growth and usefulness.

W. H. J.

A NEW FEATURE OF THE PHILADELPHIA MEDICAL JOURNAL.

It is with sincerity that we welcome the first two therapeutic numbers of the *Philadelphia Medical Journal*. It has been a claim of this enterprising journal, made in its very earliest issues and often repeated since, that it would give its readers as much or more for their money than others and certainly for those who while desiring breadth

of scientific view yet are of limited means, this claim has been fully justified. The new feature of this journal, above mentioned, must appeal with great force to every medical missionary, for we are, with exceptions, of limited means and time, and from the nature of our work, the science and art of therapeutics in their most progressive form are of supreme importance to us all and yet among the most difficult of the branches for us to follow intelligently and progressively and at the same time conservatively.

The subject of therapeutics promises to be treated broadly and the surgical bearings thereof especially fully. This latter department appeals to us with special strength. X-ray therapy for example is given full space in the issue of December 13th.

We do not care for the department entitled "Miscellaneous Formula," which every therapeutic journal seems to find it necessary to include. The hording together of complicated formulae in countless numbers and unillustrated by applied cases seems to us confusing to a degree and unscientific in spirit. It reminds us of an old-fashioned treatise on skin diseases or a wholesale druggist's catalogue rather than the careful methods of modern therapeutic practice. But this is not a criticism applicable alone to the individual but to the kind and it is our only criticism of this new departure of our contemporary.

W. H. J.

SHANGHAI BACTERIOLOGICAL METHODS.

In the October number of our JOURNAL, in the article entitled the Fatality at Chefoo, Doctor King casts a very serious reflection on the sanitary work being done by our Municipal health officers by assuming or professing to believe that the statement made to him that such bacteriological work as the making of cultures was or is intrusted to Chinese assistants, is correct.

If it was so, and I am happy to say it is not, the investigations of the Shanghai or any laboratory in the east, with Chinese in its employ, might well be called in question.

As a matter of fact all the careful technique of the preparation of culture media, sterilization of the same, and the making of cultures is done by a British medical man recently out from home, who is an expert in bacteriological methods. Whatever may be our opinion as to the actual cause of the late fatality in question, it is hardly to be wondered at that the Shanghai laboratory gave its verdict in favor of cholera in

the face of its own bacteriological examination; when so eminent an authority as Doctor Patrick Manson says: "The detection of the comma bacillus in the stools is now regarded as a positive indication of cholera" and also: "It would be rash, however, to affirm that a negative result from bacteriological examination of a single case is conclusive against its being cholera."

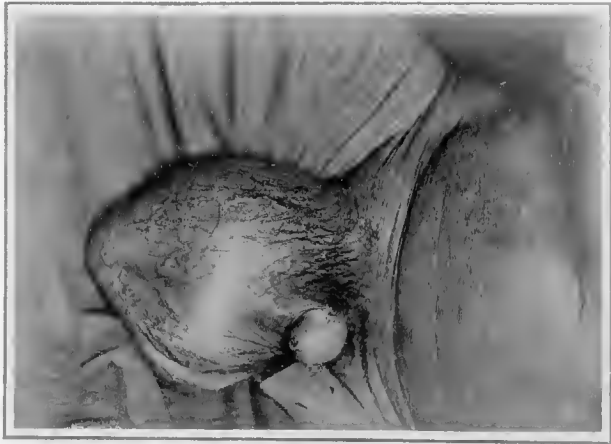
C. S. F. L.

A LITTLE KNOWLEDGE IS A DANGEROUS THING.

We learned the other day from the Harbour Master in Shanghai of a remarkable instance in illustration of the old proverb that a little knowledge is a dangerous thing. The incident is a true one and appeared in the regular reports returned to the above mentioned officer recently.

The treatment of bubo by incision seems to have made a particularly favorable impression on the natives of Shanghai, and to have appeared to at least one of them to be an easy and efficient thing. The man in question was one of several light-house keepers at a certain station near this port and a sufferer from bubo, a chronic variety of a suppurating but unrupturing sort we may suppose from the circumstances of the case. Because of distance or for some other good reason it did not seem desirable for him to make application to a scientifically trained man for treatment, and being a man of resources and of undoubted pluck he undertook to treat his one case, and being limited as to surgical supplies he used for a scalpel the particular pair of scissors, the daily mission of which was to trim the wicks of the large lamps of the light house. We do not suppose that the asepsis was perfect or the after care was all that it might have been, nevertheless some success might have been obtained but for the very unfortunate circumstance that in this particular case it did not prove to be bubo but a large inguinal hernia, and that the poor chap cut right into his intestines and of course rapidly succumbed to peritonitis.

There is something touching in this story of pluck and confidence and especially to us who know the Chinese character so well and know how well they bear pain and how trustful they are, at least in Shanghai, of the foreign doctor. It is almost inevitable that this sort of thing should happen in the early days of medicine in China, when the practical experience of scientific medicine is in advance of all theory. And it is not really a subject for any self-reproach, but it does make one



LARGE HYDROCELE—32 OZ. OF FLUID.



RIGHT OBLIQUE INGUINAL HERNIA.

ST. LUKE'S HOSPITAL SURGICAL CLINIC.

(Photos. by W. H. Jefferys, M.D.)

think that one's few words spoken from time to time to patients on the subject of their diseases and our methods of treatment are listened to and may, in spite of their often apparent uselessness, prove a safeguard, or if carelessly spoken, a positive danger to those who hear and absorb.

W. H. J.

I was thinking along this line in connection with the above incident when two middle aged patients presented themselves in the hospital for treatment. One had a large hydrocele, containing, as it turned out, oz. xxxii of serum, the other had an equally large scrotal hernia and the one case, to the untrained observer, resembled the other as one pea resembles the next in the same pod. I was tapping the hydrocele with absorbed attention, when glancing up I noticed with horror that my friend with the hernia was watching the process with eager eyes and happy. Well, I stopped right then and there and delivered as eloquent a lecture as man ever gave on the essential differences between the two similar looking conditions, and if I did not make it clear and the man with the hernia takes to tapping the same the fault will not lie at my door. But it seems pretty evident that we have a responsibility in this matter of simple explanations of our methods and the dangers of the same in untrained hands. How do others feel on this subject? (See plate.)

W. H. J.

There will be a Medical Conference at Kuling for two days, in the week following the Landrenters' Meeting. It is proposed to have two sessions each day, and the following questions are to be discussed:—

- (1). Asepsis and Antisepsis.
- (2). The Microscope as an Aid to Diagnosis.
- (3). Central Union Medical School.
- (4). Methods of Medical Mission Work.

Arrangements are being made for opening papers.

The promised second paper on "Notes from the Clinic of the Master Physician" is postponed on account of the illness of the writer.

Correspondence.

Report of Central China Medical Missionary Association, 1902.

We take pleasure in presenting the follow-

ing report of the work done by the Society during the past twelve months. The year which has just come to a close has been one on which we may congratulate ourselves. No such violent interference as happened in 1900 interrupted the course of our meetings. Any such interruptions as occurred were all arranged for and were due to such ordinary occurrence as Chinese New Year and the Kuling season.

In all there were (15) fifteen meetings held during the year, and the average attendance was (7) seven, which is an improvement of .6 (decimal six) on 1901.

The work of the Society during the past twelve months may be classified under the following divisions: (1) Clinical; (2) Papers and Discussions; (3) Miscellaneous Business.

CLINICAL.

The material presented at the six special clinical and other meetings was of varied character and was productive of discussion in many cases, which benefited both the doctors and patients. Too much stress can hardly be laid on this side of our work, and the secretary would point out the special benefit which accrues to the junior members of the Society, whose experience is thus aided and augmented by the advice of the seniors in the work.

The cases shown at various times during the year may be roughly classified under the following heads:—

EYE.

Epithelioma of eyelid. Three cases.
Microphthalmos.
Melanotic sarcoma of eyeball (pathological specimen).
Posterior staphyloma.

Diminished tension of eyeball without apparent cause.
Gummata of eyelid.
Choroiditis.

TUMOURS.

Sarcoma of neck.
Fatty tumour of thigh.
Melanotic sarcoma of heel.
Grannoma of sole of foot.
Abdominal tumour (diagnosis doubtful).
Ovarian tumour (pathological specimen).
Sarcoma of lower jaw (pathological specimen).
Myeloid sarcoma of leg.
Abdominal tumour (tubercular).
Sarcoma of scapula.

SPECIFIC.

Tertiary syphilitic ulcerations (numerous).
Glossitis.
Occlusion of mouth.

BONE.

Necrosis, etc., numerous cases.
Maltreated fracture.
Strumous dactylitis.
Coxa Vara.
Scoliosis and maldevelopment.
Fractured jaw.
Injury to elbow joint.

HEART AND VESSELS.

Mitral stenosis.
Aneurysmal varix (pathological specimen).

GRANULOMATA.

Eight or ten cases of leprosy.

NERVOUS.

Hemiparesis.
Ataxia.

BLADDER.

Three cases of Calculus (pathological specimen).

MISCELLANEOUS.

Beri Beri.
Orchitis.
Hernia.
Lymphatic obstruction.
Avulsion of scalp.
Skin grafting.
Diabete mellitus.

It will be seen from the above list what a wide field of enquiry was opened up.

PAPERS AND DISCUSSIONS.

There were three discussions arranged for, viz., "Anæsthesia, Local

and General," opened by Dr. R. T. Boo h; "The Question of a Manual of Nursing," opened by Dr. S. R. Hodge; "Asepsis and Antisepsis," opened by Dr. G. A. Huntley. The papers introducing these showed evidence of careful preparation, and were well discussed at the close.

The papers prepared for the meetings were as follows: Dr. Peake early in the year gave us an instructive paper on the "Natural Resistance of the Body to Infective Organism" and ended his paper with the injunction "to take care of our leucocytes."

Dr. Hodge on March 12th, favored us with a paper on "Nursing in Mission Hospitals," which provoked an interesting discussion and produced lasting effects which will be acted later on in the Report. On April 16th, Dr. P. Lansdale McCall gave us his long promised paper on "Chronic Opium Poisoning." The paper, which did not seem to have "disimproved" by keeping, provoked one of the most important discussions of the year, a discussion which is also remarkable from the fact that all the members present took part in it.

Dr. Davenport, the president, gave us the benefit of his experiences in the London School of Tropical Medicine, laying particular stress on some of the many recent advances in the study of tropical medicine. Everyone present made up his mind that some time or other, in the event of a furlough, he would make his way to the Seamen's Hospital, register his name as a seeker after knowledge, and having acquired it, would then return to his work up to date and better fitted to use the microscope to aid his diagnostic powers.

Dr. Gillison instructed us at a later date by giving "Some Hints on In-patient Practice." His methods of dealing with the various classes and masses, his persuasive powers in dealing with their objections to operations and his wily plans to win the patients' confidence, were all instructive, especially to the juniors present.

Dr. Fowler, of Hiau-kan, on November 28th did the Society a lasting benefit by his important and well written paper on "Leprosy in Hiau-kan." He showed himself well able to deal with his subject, and did so in a masterly fashion.

His paper was illustrated with diagrams drawn by himself from his own and other preparations. Cases illustrative of the various forms and stages of leprosy were exhibited. The meeting-unanimously recommends that the paper be published in this JOURNAL.

Looking back on the year we feel that the C. C. M. M. A. is to be congratulated on the success of this branch of its work. The papers, as far as possible, dealt with the practical side of our work, and could not fail to benefit.

MISCELLANEOUS.

Under this division of the Society's work we have to record three important matters which have been dealt with.

(1). Unification of Scale of Fees and Hospital Charges.—By this the fees for out-patients and in-patients in the men's hospital of Hankow were brought into line. In this connection we would call attention to the importance of the movement towards union, and trust that the Society will direct its attention to the same important end in connection with other matters.

(2). The Question of the Duty imposed on Hospital Stores.—The president of the China Medical Association, early in the year, approached the British Commissioner, Sir James Mackay, but received no encouragement. Later on the American Commissioner was approached by Dr. Boone, of Shanghai, who received a reply to the effect that while the Chinese government was willing, there was so much opposition on the part of some of the Powers that nothing could be done. The matter rested for some time, until Dr. Otte wrote Dr. Hodge as president of the C. M. A. Since

then our Society has taken the matter up, and a petition has been drafted and is being printed. This will be circulated to all the medical missionaries in China and then forwarded to head-quarters. Should this petition succeed, our Society will have done a deed which will not benefit merely itself but will be of great benefit to all.

(3). The third important matter dealt with is the preparation of a Manual of Nursing. It was long felt that such a need existed, and Dr. Hodge's paper on "Nursing in Mission Hospitals" brought the matter to a head, with the result that a manuscript in English has already been prepared and is being sent to all the members for criticism and suggestion. As soon as the editor of the English manuscript passes the final draft, it will be put into Chinese (mandarin).

It is hoped that at the end of next year (1903) the published book will be a reality, and our nurses and assistants deriving much benefit therefrom.

So, looking back over the year's work in all its branches, we feel that in addition to the work done along these lines, there has been immense benefit from the social intercourse and interchange of ideas which of necessity took place. The Society has done much towards union (the Union School scheme being in abeyance is no fault of the C. C. M. M. A.), and it is to be hoped that during the next twelve months (1903) still greater progress may be made.

Signed on behalf of Executive Committee.

C. J. DAVENPORT, *President.*

R. T. BOOTH, *Hon. Secretary.*

DEAR EDITOR: I wish to give you a few notes on a bad case of hæmorrhagic confluent small-pox in a foreigner.

December 28th.—The patient felt out of sorts.

December 29th, 30th, 31st, was going about, but did not feel well.

January 1st.—Symptoms worse, but still forced himself to work. Was exposed to bad weather and chilled on the morning of January 2nd. In the afternoon he took to bed and called physician. He had in the evening a temperature of 101°, with bad stomach and tenderness over the liver, and back and headache. Gave *calomel* and *salts*, with *turpentine* over the liver.

January 3rd.—Temperature 105° in mouth.

January 4th.—Temperature 105°. Rash beginning on *alae nasi* and roots of hair. The rash is like that of measles; no hard shotty feeling. Patient clear-headed, no delirium.

January 5th.—Temperature 105° in mouth; no delirium in the day. At night there was some delirium, possibly due to a further rise of temperature (temperature not taken). Epistaxis and bloody urine; hæmaturia, not hæmoglobinuria, in the night; also, from later evidence, hæmorrhage of bowels, petechiæ.

January 6th.—Temperature normal, bloody urine, active delirium. Gave brandy and *strychnine*. Fifteen grains *sulphonal* in the morning, which quieted him, but gave no sleep. *Ergot*, *ac. sulph. digitalis* for hæmorrhage. 9 p.m. gave thirty grains *sodii bromidi* by mouth and *morph.* $\frac{1}{8}$, *str.* $\frac{1}{3}$, *atropine* $\frac{1}{100}$, hypodermically, which gave four hours' sleep.

January 7th.—Temperature normal, very hungry, tongue cleaning. Noon took food—milk, eggs, beef juice—ravenously. Rash very petechial and more elevated; no vesicles, but umbilicated appearance of face; rash in places. Has four or five hours' sleep in the night without medicine.

January 8th.—Temperature normal, getting weaker; pulse 130. Hæmaturia lessening, epistaxis well, slightly delirious. Evening temperature 100.5. Thirty grains *sodii bromidi* gave four hours' sleep. Rash slightly vesicular.

January 9th, morning.—Temperature 102.5, dull and lethargic, but understands. Pulse 140. Hæmaturia nearly gone. Evening temperature

102. Axilla. Enema gives large action and evidences of blood.

January 10th. — Weak. Morning temperature 103.3. Axilla. Lethargy, but understands. Pustules on face, vesicles on body. During the day temperature in mouth 103°-104.° 11.15 p.m., delirious.

January 11th, 2.15 a.m., died.

It is generally said that as the eruption begins in S. P. the fever goes down. In this case the fever rose to 105°. The rash not being hard and elevated but like measles, even the crescentic arrangement being manifest, it seemed like measles, and it was hoped that it was a case of measles and that as the temperature was normal and appetite and senses returning, convalescence might be expected. But the secondary rise of temperature and the tendency to umbilication of the rash, though dry or not vesicular, indicated S. P. Later vesicles and pustules formed, making the diagnosis sure.

The rash was very bloody and the legs looked as if bruised. Vesicles and pustules appeared late.

The patient took plentifully of eggs, milk, beef tea and juice, Bovril or arrowroot all through. Brandy and *strychnine* and *digitalis* were given to support the heart. *Sulphuric acid* was taken every few hours, also lemon and orange juice.

Sincerely, W. E. MACKLIN.

NANKING, January 13th, 1902.

Statistical report of medical work
Work in Hunan. for the year
1902.

New cases...	...	...	...	3,002
Old „	...	...	...	1,713
				—————4,715
Surgical operations (includes abscesses opened, etc.)	...	...	...	39
Teeth extracted	...	...	...	23
In-patients	...	...	...	17
Visits to opium poisoning cases	...	...	...	21
„ „ other cases	...	...	...	119

Drs. KELLY AND LOGAN.

Cumbeland Presbyterian Mission,
CHANGTEH, March, 1903.

OPENING OF ST. ELIZABETH'S HOSPITAL.

On Tuesday, March 17th, the American Church Mission in Shanghai opened its new hospital for women—St. Elizabeth's.

The hospital is on Avenue Road, Sinza, and will be a great boon to the large and populous district north of Nanking Road and west of Defence Creek.

The opening service was conducted by the Rt. Rev. Bishop Graves and Rev. J. Lambert Rees, of St. Peter's Church, Sinza. After the prayers of consecration by the Bishop, the hymn "At evening when the sun was set" was sung, the Rev. Mr. Rees made an address in Chinese, and the Bishop pronounced the benediction. A goodly number of the friends of the Mission, both Chinese and English, were present and inspected the hospital. The hospital is a commodious two-story building, containing three large wards, operating and sterilizing room, private rooms and office; directly behind it, and nearer the street, is a separate building for the out-patient department, the kitchen, and rooms for the assistants. The hospital is in charge of Doctor Juliet N. Stevens, assisted by Doctor Edith Macgowan, who was formerly on the staff of the Margaret Williamson Hospital at West Gate. In the next issue of the JOURNAL we hope to have a more extended description of the hospital.

BIRTHS.

December 30th, at Chen-tu, Szechuen, the wife of Dr. O. L. KILBORN, C. M. M., of a son (Roland Kenneth).

January 30th, at Wei-hui-fu, the wife of Dr. J. MENZIES, C. P. M., of a daughter (Isabel Ruthven).

MARRIAGE.

November 20th, at Worcester, Mass., U. S. A., Rev. ROBERT H. GLOVER, M D., and Miss CAROLINE R. PRENTICE, both of C. and M. A., Wuchow, South China.

DEATHS.

January 18th, at Têngchow, of scarlet fever, EUGENE SCOTT, son of Dr. and Mrs. W. F. Seymour, A. P. M., aged one year.

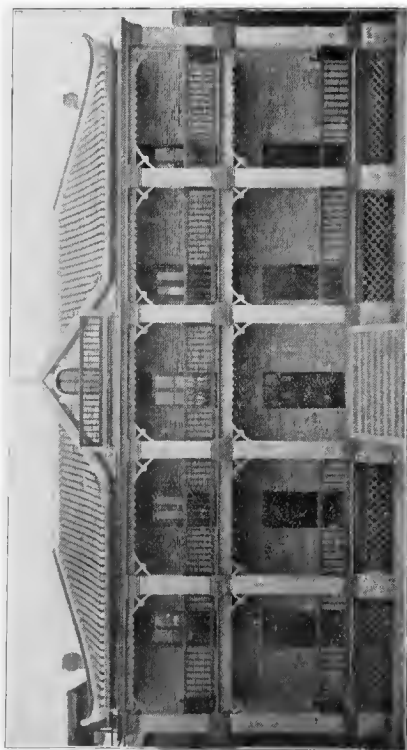
January 21st, at Têngchow, of scarlet fever, FREDERICK MERLE, son of Dr. and Mrs. W. F. Seymour, A. P. M., aged six and a half years.

ARRIVALS.

February 24th, Dr. A. and Mrs. HOGG, and three children (returned), from England, C. I. M.

DEPARTURES.

March 28th, Doctor and Mrs. J. D. TRAWICK and son, Southern Methodist Mission, Soochow, for America viâ Europe.



FIRST HOSPITAL, FOR HUNAN.

Cambridge Presbyterian Mission, Chang-oh. O. T. LOGAN, M.D.

The

China Medical Missionary Journal.

VOL. XVII.

JULY, 1903.

No. 3.

Original Communications.

[All papers must be in the hands of the Editors two months before date of publication to insure their appearance in the following number. The editors cannot undertake to return manuscripts which are sent to them. A complimentary edition of a dozen reprints of his article will be furnished each contributor. Any number of reprints may be had at reasonable rates if a written order for the same accompany the paper.]

THE HOSPITAL IN CO-OPERATION WITH THE CHURCH.

By W. H. JEFFERYS, A.M., M.D., SHANGHAI.

Most of us have tried our hand at the development of or perfection of some scheme for better co-operation of the hospital and the church, for the following up by the church of work begun in the hospital, for building a bridge between the two over which some who give promise may be led out from the one into the other. It is an all-important and an extremely difficult subject and one on which somewhat has been written and much labor has been expended. I need not apologize for briefly presenting a scheme which has lately been adopted at St. Luke's Hospitals, Tokio and Shanghai, and was, in this particular form, planned by Dr. Teusler (of Tokio) and myself, with the co-operation of our hospital chaplain, Archdeacon Thomson, and my colleague, Dr. Boone. I have no doubt that other schemes of equal or greater merit have been put in practice in other localities, but the following seems to us to be eminently practical and to have some advantageous characteristics.

I present the plan, exactly as used by us, for simplicity and clearness, and add a word or two in explanation. Its framework consists of three papers; the first a letter which explains itself as intended to set forth the aim of the hospital in using the other two. This letter we forward to every missionary in our own mission and also to all members of other missions who are in the habit of, or might wish to, send us patients and to business men and others who may send us patients and who are at the same time both interested in mission work and live within working distance of the hospital:—

ST. LUKE'S HOSPITAL.

SHANGHAI,, 190 ..

MY DEAR

It is the earnest desire of the physicians of St. Luke's Hospital to bring the institution into the closest possible touch with every other branch of Mission work and in addition to its individual work to render it a useful adjunct to your own.

The particular plan we desire to inaugurate has for its object a closer and more determined hold on individual subjects who give evidence of interest in spiritual matters, or other sufficient inducement for further attention on the part of those who have the spiritual ends of missions in their keeping.

We beg to enclose certain forms for your use in sending your sick and suffering ones to us for medical or surgical ministrations, and heartily urge you to make use of the same, that we may have the advantage of your former knowledge and intercourse with these individuals and be in a position to give them the most efficient and fruitful personal attention. On our own part, in the case of all persons going out from our care and warranting us in calling on you or your associates to follow up the work begun by us, we will in each case send you information sufficient to fully warrant you in taking up the thread where we have broken the same.

We furthermore earnestly plead for your sympathy and co-operation in this, which must appeal to you as a step in rendering the hospital a means of active evangelistic work, and as the only means in our possession of making use of the many promising opportunities which present themselves in those leaving our institution under the favorable circumstances for spiritual birth engendered by convalescence, gratitude or the first vision of spiritual things.

Faithfully yours,

This letter is accompanied by an appropriate number of copies of the sheets, which are intended to be used by the recipient when sending any patient to us for treatment.

Serial No. _____

_____190 .

Chief { Physician
 { Surgeon

ST. LUKE'S HOSPITAL

Shanghai (Seward and Boone Roads, Hongkew).

Dear Sir :

The bearer _____ (address _____)

(age _____) is suffering from _____

and desires { out-patient treatment. He { is
 { in ,, { is not a Christian.

He is { well-to-do
 { in moderate circumstances
 { poor
 { deserving of charity

and is recommended to your attention and advice by

Yours very truly,

Remarks :—

Note.—If preferred the above may be mailed to the hospital and the patient given a slip of paper with the address and the above serial number.

On the appearance of any patient bearing one of these letters of introduction, it is placed with the records of the patient, where the chaplain, his assistants and the physicians of the hospital can see it at the head of the bed and serves as an immediate introduction to the patient and a basis for information and conversation. It gives the standing of the patient, his spiritual status and adds a distinct personal touch to our relationships with the individual.

Let me illustrate by a couple of examples. Before this scheme was started, it was about a year and a half ago, there was a young fellow who was struck with a hoe by a foreigner, with the result that two of his ribs were cut through and the lung perforated. It was a serious accident, but the patient entirely recovered in St. Luke's and was sent home well and more than grateful. He had received much instruction and kindness when with us, during a whole month, and was in a very receptive mood when he left. I knew that his home was within ten minutes walk of St. John's College, and if I had asked Mr. Day or any one else to follow him up, he would have done so gladly and the man might easily have been a Christian by this time and a regular attendant at the college gate school or the church. But we had no system about this matter, and I let it go, and I suppose the fellow is about as much of a heathen as he ever was.

On the other hand, there is now in my wards a boy of fourteen years of age. Four months ago he had his knee joint removed for bone disease. He is a lovely boy, and I have in all this time learned to love his bright smile and great patience. When he leaves, as he shall before a great while, he will have been more than half a year in the hospital and all that time has been one of our chaplain's special cares and received a large share of his attention, and has already told him he "would like to be a Christian." But he lives in Pu-tong, across the river, and we have no church or worker there. So when he leaves us I shall send an account of him and his name, etc., to one or other of the two or three missionaries of other churches who are there,* and if I ever hear of him again as a Christian at heart I shall not care that he was never on our hospital books as such.

I might multiply these illustrations and possibilities of the simple idea which, except in this particular form, is not probably new. The chief gains hoped for are more personal touch with a certain proportion of our patients, a basis of introduction and conversation (for with a hundred or more constantly changing patients† it is not easy to be personal with each one or even with the majority) and a practical method of having the work of evangelization which is begun in the wards followed up when our own hold on promising individuals must of necessity be relaxed. Also a possibility of hearing at least in certain instances of the fruit of our planting.

I shall try to report to you at some later time of the results and practicability of this enterprize and meanwhile shall be interested to hear of other similar attempts. It is needless to say that the scheme or any part thereof is entirely at the use of any who see profit therein.

I neglected to mention that envelopes, addressed to the hospital in Chinese, are forwarded with the introduction blanks.

* When the time came, I failed to find any missionary living in Pu-tong at present, but the illustration is what I wish to draw.

† The scheme is only useful with regard to in-patients, and with them only to selected cases. It is not intended for other than such. The words out-patients appear on the letter of introduction, because so many out-patients afterwards become in-patients, and we keep fairly full records of both.

THE EVANGELISTIC ARM OF A MISSION HOSPITAL.

By W. J. WANLESS, M.D., *Miraj, India.*

One of the resolutions passed by the recent Decennial Missionary Conference at Madras reads as follows: "The medical missionary should personally organize the spiritual work in the hospitals and dispensaries under his charge and should take an active part in it." The words of this resolution ought to be axiomatic in the work of every medical mission. As the spiritual teacher of his patients no one can possibly exert so great an influence as the missionary physician himself if he chooses to use his unique position for the purpose, as he has the right to do, and certainly ought to do. The medical missionary makes a serious mistake who is content to relegate responsibility for the spiritual arm of his work to a non-medical colleague, no matter how well the associate be fitted as a teacher or preacher. The ordained or other associate missionaries can, and ought to make, and presumably in most instances do make, a large use of the medical mission, near to or in connection with which they may be located, especially in following up the influence of the hospital in the homes and villages of the patients who come for treatment. But the main place of pointing the suffering patients and their friends who come to the hospital to Christ, the sufferer's Saviour, is pre-eminently the duty and privilege of the medical staff of a mission hospital.

A qualified medical missionary ought to be no more satisfied with his abilities as a mediocre doctor than he is with himself as an indifferent spiritual helper. Professional indolence in a medical missionary, which in itself is undesirable, is not less so than failure on his part to make known the saving power of Christ to those whose physical sickness has made it possible for them to learn of the Way of Life.

To help our native medical helpers to see their duty as winners of souls as well as healers of bodies is the high privilege of every medical missionary—a privilege which can only be satisfactorily enjoyed as the missionary himself seeks to live on earth the life of Him who while on earth went about doing good. In preparing for medical missionaries the thing most needful to plead for by the home church and the thing which above all others the medical missionary staff itself needs to ask for is, that, however excellent the professional results (and good professional results are needful if a work is to live and tell for Christ) the medical staff of a hospital may continue steadfast in the faithful fulfillment of the trust committed to them as the followers of Him who went forth to preach as well as to heal.

Under the present plan in the Miraj Hospital every Christian medical helper—and all the helpers are Christians—has a definite regular part in the

evangelistic side of the work. The eight students in training for medical missionary work, the three compounders and the three native nurses, in turn with the foreign medical staff, have regular spiritual duties as a part of their routine work. In a daily preaching service for outdoor patients; in a brief daily service of song, exhortation and prayer in the hospital wards, which all the medical staff attends; in a Sabbath-school and two other gospel services weekly for the patients and their friends; at the Leper Asylum where a Sabbath-school and another service are held every Sabbath; in a Sabbath-school for school children the Indian helpers in common with the foreign workers have opportunity to testify for Christ and to teach Him as the only all-sufficient Saviour.

In the Bible classes for the medical students and nurses these assistants are encouraged to do personal work for Christ, not only in talks by the bedside and in words of kindness, but especially by doing the *kind of works* which gives meaning to words.

Gospel tracts are also freely distributed among the patients and gospels and other Christian books are given or sold to the patients. People from six hundred villages hear the gospel every year through the medium of the Miraj medical work.

It is true that many, probably most of the patients, are indifferent to the gospel message. It is also true that many are interested; while some may disapprove of our teaching and preaching, none openly oppose it, and the medical work itself is none the less popular because of the evangelistic work. But whether few or many are really interested, or whether there be visible fruit or not, it is our business and high privilege to teach as well as to heal, and the making known of Christ to people from six hundred different villages annually cannot always remain a fruitless occupation, even though now the influences of the work appear to be only of an indefinite and indirect nature.

It is required of us that we "be found faithful." The results are in God's hands. He is faithful who hath promised that His Word shall not return unto Him void.—*The Assembly Herald*.

CHILDREN'S DISEASES IN CHINA*.

By MARY V. GLENTON, American Church Mission, Wu-chang.

I spent the best part of my first two years in China, finding out that the same diseases do not manifest themselves in the same way as they do at home, either in children or adults, and that the treatment that worked like a charm at home, fails utterly here, while the treatment that we scarcely ever resorted to there, will usually prove most efficacious here; and last but not least I

*Read before the Hankow Medical Association, May 27, 1903.

found that we meet with and see things here that we would never see at home, and to which is only given a very short space in the text-books used in the home colleges, and an equally short time in the lectures, with no clinical material. My first two years were spent in grasping the fundamentals of practice and therapeutics in China, and I'm still on the grasp.

As I said before, this is a large subject, and it is a problem as to how to divide it into heads, for no matter what two great heads are chosen, each will have sub-divisions enough to fill a book, and it is as much as I can do to write a paper.

The safest division is, to my mind, surgical and medical, although one merges into the other to such an extent that the dividing line is hard to draw.

In the surgical cases we are all familiar with the child brought to us in the advanced stages of hip disease, sinuses galore in the region of the joint, the ankylosed knee, and the atrophied and shortened leg; the mother blandly tells us with her most condescending manner that we may take the child into the hospital if we promise to send him out cured at the end of ten days; another brings a child with a decided hump, the result of Pott's disease; you may take him in, as a very great favor, for three days, but he is to be returned perfectly well at the end of that time. Some more parents of the same order will bring a child suffering from cancerum oris or noma, the whole side of the face one great black dry mass of necrosed tissue; they will tell you with every notion that you will believe them, that this state of things has lasted four days, and won't you please give them some medicine to drink that will make the child well? In all these cases you go into elaborate details as to what should and should not, could and could not be done, exhausting your own stock of Chinese and that of every one within reach at the time. The mother picks up the child with a dissatisfied grunt and walks off; at the next medical meeting you find that they have called on your neighbor in another mission hospital, and you are not at all surprised to see the same case bob up serenely at a clinical meeting across the river and not a bit abashed at seeing you there. You wonder what there was in your neighbor's method that succeeded where yours failed. The question answers itself by your discovering that some patient is now under your charge, that bad gone the rounds, but this time you happened to be last instead of the first to whom the patient was presented.

But there are cases that can be helped, if not entirely cured, and it has been my luck to get the first whack at one or two of them occasionally.

When I first began work in Wuchang I was deeply impressed, and I am still, with the way in which serious cases of various kinds yield to patient care and treatment. I have had women and children come to the clinic with feet that cannot be described in any other way than inflamed or diseased or even

putrid masses of flesh, all semblance to a human foot gone, the inflammation extending in most instances up to the knee. I have put the patient to bed, dressed and irrigated the foot twice daily, given *quinine* internally, and the patient has come out, with one exception, with a fairly good foot, and in the exceptional case the bones of two toes were exposed, and the father refused amputation, as Chinese fathers usually do. Just about this time of year such feet as I have described come in frequently, and they all tell the same story: a scratch or abrasion on the foot, daily working in the rice fields. The negroes of the south work in the rice fields at home in their bare feet too, and we never meet with this state of things; the water here may be dirtier: but the negro of the south will get lock-jaw, on the slightest provocation. To such an extent is this true that some of our American text-books read in the etiology of tetanus: Sex, males more frequent; race, negro greater prevalence. I have formed this opinion, and I ask some one of longer experience to correct it if it be wrong: that the bound foot and its atrophied muscles, misplaced bones, and retarded circulation, hasn't the power to throw off the poison carried to an abrasion, and however slight the abrasion the continued action of the dirty water and the lessened power of resistance in the tissues attacked, bring about this state of things.

Then there are the scalp abscesses that are so frequent here, and as far as my experience goes as nurse and physician at home, they are as rare as they are frequent here. Why this is so I cannot explain, and again I ask for light. The Chinese are a dirty race, but their hair and heads are much cleaner and even freer from pediculi in the coolie class than are our tenement people at home. I can only lay these abscesses to the door of infected razors, but why don't our working men at home develop them on the chin? Italians are not the cleanest people on earth, and in our slum districts at home, in New York at least, the Italians have the monopoly of the harbar trade.

It is needless to go into the cases of dactylitis, suppurating cervical glands, and chronic abscesses generally; these we see at home, possibly as frequently, but rarely in such advanced stages and neglected condition. To pass on, as I said before, the medical and surgical merge the one into the other, as for instance the mucous patches that need surgical dressing, the otorrhœa that takes as much time as would a satisfactory abscess; these cases have to be treated under both heads, and not always with results either speedy or satisfying.

I have had a great many cases of prolapsed rectum amongst the children; they all come at the same time of year, i.e., at the close of the summer vacation. I sometimes have found the protruded bowel covered with thin Chinese paper which has hardened and formed a crust, but which comes off in scraps; getting this off usually gives the child a good start in

the crying process, so that when I am ready to reduce the prolapsed bowel, the child is screaming, bearing down, kicking, and resisting in every way possible. I have succeeded in reducing the prolapse in all cases but one; that case came to the dispensary across the city; the child was cachectic when I first saw it, and each time it came, the bowel was further out than the last. I think I saw the child four times; the first three I reduced the prolapse, but the last I simply could not. I am afraid to say how long the prolapsed portion was; it looked like yards to me. Another very stubborn case was conquered by strapping the buttocks.

One cause for this condition is, to my mind, the position assumed in defecation. At the end of the long summer, with its train of intestinal disorders, the weakened bowel can stand very little strain, the buttocks have no support ordinarily when a child moves its bowels, there may be tenesmus, and even without, prolapse follows. We have to guard against it at home in some children.

The intestinal disorders seem to belong to about the same order as they do at home, with possibly less cholera infantum and more dysentery. The children seem to come through the summer and its disorders better than do the little folks at home, in America at least, and at home even the very poorest have a better chance for life, with the help of district physicians, district nurses and floating hospitals, etc., while here, injudicious feeding, dirt and neglect, all help on the disease.

Speaking of intestinal disorders, brings me to intestinal parasites. It is the rule of the mission hospital in Shanghai (or it was when I was there) to give *santonin* and *calomel* to each patient on the night of admission. I have not only adopted it as a rule here, but I find it a good plan to follow a similar rule with the children in dispensary practice.

I had one child come in a year ago for tubercular glands. Her bowels refused to act after the initial dose (I gave *santonin*, *calomel*), followed by *salts* and *castor oil* galore, even resorting to a drop of *croton oil* on the tongue; the bowels still refused to act, and my helper, who was untrained, reported failure after two enemata. I was very busy, and it wasn't till late in the afternoon of the second day of dosing that I could find time to give an enema myself. I finally managed it, however, gave it very slowly and with intervals of rest, and to my extreme gratification (for I thought I had an obstruction) I succeeded in getting the bowels to move. A mass of squirming worms came away, over a hundred; the child was relieved from pain immediately and slept soundly. For about four days she kept passing these things, about twenty each day. I gave her *santonin* once a week regularly, and every week the same result; worms for three days. She left at the end of six weeks, or I should be dosing her yet and possibly with the same result. You are all very familiar with the enlarged abdomen of en-

largement of the spleen, and you have all been called at some time to children in convulsions, who had been that way for six or eight days, and who would promptly go into another at the slightest touch. Some of these cases, in my experience, have recovered; in others I have never heard the result; and still others have improved, but in a day or two have fallen back under Chinese treatment.

I went through an epidemic of cerebro spinal meningitis in Shanghai. I was called to several cases, but only knew the final result in one, and she was in the mission family; she recovered.

The disease, or symptom rather, that baffles me most is the ever present dropsy in the slave girls. Will somebody tell me what to do for it? I find albumen and I give diuretics and heart tonics, for the heart is generally all out of order. I tap and the child fills up again in less than a week, and after a while I get to where I can't tap any more. I have given steam baths and put the child to bed; the face then swells to an enormous size, being more swollen on the side on which the child lies longest; she gets up, and her face goes down. In one or two cases, when I have gotten hold of the child in time, I have sent her away improved, but in the majority of cases, the child has been taken home to die, or left in the hospital to do the same thing.

I have seen very little pneumonia; in fact practically none amongst the children here. I have had cases of capillary bronchitis, and it was in connection with this disease that I found out what a large dose of *ippecac* it takes to get an emetic effect on a Chinese child.

The exanthemata seem to attack Chinese children in a milder form here than at home, except possibly scarlet fever. I had a case in Shanghai that was not fatal in itself, but it caused great mortality nevertheless. An in-patient, a child, caught scarlet fever; she had found her way into the waiting room during dispensary hours, and a case of scarlet fever was there waiting to be seen. The child was promptly isolated, and her father was informed of her condition; he came to see her, bringing with him her brother; after they had gone, I found, to my horror, that the boy was a St. John's College boy. The boy was sent home before he had had a chance to spread the disease through the College, and the father took the girl home to Kia-ding. She went from the hospital to the boat in a public rickshaw and from Shanghai to Kia-ding in a public boat. The child recovered, but there were twelve deaths in the alley in which the family lived, and all the sickness dated from the child's arrival.

Speaking of Shanghai calls to mind cases that should have been brought in under the head of surgical cases. I had at one time, while I was there, seven children, babies all of them, coming for daily dressing with poisoned arms, the result of vaccination in the native city. One child had a slough

shaped exactly like a clover leaf, but about three times as large as the largest clover leaf that I have ever seen. When the slough was removed, there was a three-leaved hole extending down to the periosteum. This soon healed up, as did all the other cases with one exception. Amputation seemed the only hope in the exceptional case, but when I told the mother she acted like the ship that they sing about. She never came back.

I do not think it wise to take up the time with the long train of constitutional and hereditary disorders that are not, strictly speaking, children's diseases.

Skin diseases in children are about as they are in adults, running chiefly to scabies and eczema, with psoriasis for variety and the ever present tinea of the scalp.

Then we have the malarial fevers, typhoid and beri-beri, but these are not, strictly speaking, children's diseases, and any way I have seen only one case of beri-beri, and that was in Shanghai. I think, in fact I know, that I could write a much larger and fuller paper on What I am anxious to know about Children's Diseases in China. I have tried to touch specially on the diseases that are not seen at home, or if seen, are less common than they are here, and I hope that this paper will evoke many suggestions and such discussions as will give me many valuable points in this important branch of my work.

HOSPITAL EVANGELISTIC WORK.*

By MARY LATTIMORE, Soochow.

"Go ye into all the world and preach my Gospel." There are many ways in which the followers of the Christ, in these days, strive to obey the command of the Master. We preach, sending men to proclaim the gospel even to the uttermost parts of the earth. We build schools and colleges, and men and women spend their lives in the education and training of the young. We send teachers to the women, gathering them into schools and classes, or go from home to home and village to village telling them of the doctrine of love and peace. And we build hospitals, and devoted physicians give all their learning and skill to healing the sick. From all Christian lands we come, bearing each one of us the message to those who sit in darkness. We all have one aim and object in life—to obey our Master. If for any cause we fail to bring Him to the people we live among, our work is all in vain and our lives lived for naught. The question then to-day is, How shall we tell of Him to those who come to us for healing of the body and how shall we win them

* Read before the Soochow Medical Association, April, 1903.

for Him? First we must believe ourselves that we build our hospitals, open our dispensaries, and send our physicians, to *win souls* and heal bodies. If we do not put the soul first in our prayers, our thoughts, and our plans we fail in what we have started out to do. From the physician to the humblest Christian all must feel that they are working together with Christ to win the soul from darkness and to heal the diseased bodies of those who enter the hospital. In a Children's Home in Washington, just as you enter the hallway, there is a beautiful white figure of our Lord. With outstretched pitying hands He stands as if to welcome the little children. So in our hospitals He should be the lovely unseen presence whom we all serve and try to bring to the knowledge of others. And this cannot be the work of any one person. It cannot be done by chapel prayers or hed side teaching alone. Often and often it is the gentle touch or softly spoken word of the physician that makes the poor patient realize the truth she may have heard from the teacher of the doctrine of love. Or it may be the kind look or ready service of the nurse or servant which makes her feel the reality of the presence of the Lord. But just as the physician has method and order in her care of the bodies, so must we in our work for the souls. For this work every hospital should be well equipped. There should be a foreign evangelist in charge, with Bible women and teachers in proportion to the need. The greatness of the opportunity should make us ask and expect from our missions all the needed force to carry on the work. The physicians with their many cares should not be expected to have the added burden of the supervision of this work, but their own share of it should never be overlooked or neglected. We must work patiently day after day, week after week, not looking for great results, but happy if we can win some recognition of our Master from the dark, sinful lives we touch.

The clinic will give us many opportunities. The chapel is the place for the Bible women and the foreign teacher to become acquainted with the patients as they wait their turn to see the physician. Many a story of sin and sorrow is told here, many glimpses given into the lives of those who come. Here is the place to take the addresses of those who seem interested, for future visiting. Of the many who come some go away comforted, for they have heard "good tidings;" some listen, but do not comprehend, and some refuse to hear. It is good for this work in the clinic to take a personal form rather than that of a service, so that each comer may feel that you are interested in her. Reading of the Bible and prayer they may not understand, but the word spoken directly carries meaning and force. If the clinics are large other Christians should be invited to help, so that all may feel the responsibility and share in the privilege. Be sure that every one is invited to the next Sabbath service, for people respond to a special invitation. Sometimes tracts may be distributed here and calendars may be sold or given away with good results. In the office the physician and her assistants, even in the

midst of a busy clinic, often find an opportunity for a word, and many times this word has more effect than all the previous teaching. These clinic patients should, as far as possible, be visited in their homes. Especially should those who have seemed friendly and interested not be lost sight of.

But it is in the wards that the best evangelistic work is accomplished. After chapel prayers attended by all who are able to leave their beds, each patient should have personal teaching. This is best done after the physician has made her rounds. Here again one gets many a confidence. Here is the place to let each one know that the Lord we serve is their friend. How often they respond to this quiet heart to heart talk. This is the Bible woman's best opportunity as well as yours. Here timid ones are encouraged, sorrowful ones comforted and those who seek Him find. These patients, too, should be followed up in their homes, being frequently visited and taught. A school for such patients as are able to study, and for those who may have come with patients, is a good thing. Parts of the Bible, hymns, the Lord's Prayer, a catechism, may be profitably studied and much less time left for idle talking. It is a good plan to have this teaching include your hospital servants as well, their work being so arranged that they may have at least a half hour's daily study.

Prayers in the evening may be led by the students and helpers in turn, being very informal and all being encouraged to take part. Attendance on the Sabbath services and weekly prayer meeting should be urged, but not forced. These are, in brief, some lines along which we may work, enlarging as we may find opportunity.

Very important is the place prayer should take. Remembering that unseen presence we should invoke His help and blessing on every part of the work. Prayer before clinic with those who are to take part is most helpful. Just a pause in the busiest part of the day to ask Him to bless those who come and help those who minister, draws every one very close to the Master. How can any one be anything but pitiful to those in the dark if they are just from their knees? Prayer for any one very ill and prayer before operations, and at the time, make all feel that they too have a part to take in time of special need. Teach a little prayer to each patient if they are willing to learn. Some of them turn so eagerly and simply to Him for help. Do not preach too much, but "speak often" of the Lord. The physician as she makes her rounds, the student, Bible woman, servant may all speak their word. Who knows which will bear fruit, this or that?

What are the results then? Are the discouragements many? The results are only known to the Master; they do not much concern the servant. Some women find the Saviour and acknowledge Him in lives given to Him. Some find help and comfort as they win their way back to health, and some, thank God, find the road from their sick beds to heaven. Of them all the Father

keeps the record. Discouragements? There are none except in ourselves. In our work to win souls the result is sure whether we see it or not and we wrong Him if we become discouraged.

Work on all together then, physician, teacher, helper, servant, each one in her own place, and as the Lord gives it to her, doing hospital evangelistic work.

SOME CLINICAL NOTES FROM KASHING, CHE-KIANG.

By W. H. VENABLE, M.D.

Case I. A young man of some wealth and prominence came here suffering with a traumatic stricture of about a year's standing. He also had a large perineal abscess, and could pass only a few drops of urine at a time. After incising the abscess he could pass urine voluntarily through the perineal wound and did not suffer from incontinence. The tissues were so soft and friable that I did not consider it wise to undertake any operation for the restoration of the urethra at the time. He was emaciated and haggard looking when he first came, but when he left a week or two later his condition was very much improved.

In about a month he returned with the perineal opening very much contracted and begged for another operation. The inflammation had subsided and the tissues were in a better condition, so I decided to see what I could do in the way of restoring the urethra. Unfortunately the inflammatory process or the injury which caused it had obliterated about an inch of the urethra, so I decided to bring the near end of urethra into the perineal wound and stitch it there.

This was a disappointment to me, but to my surprise the young man was delighted with the result of the operation. It has been about a year now since the operation, and he has perfect control of his bladder, and there has been no undue contraction of the perineal opening.

The patient is a married man with several children. He declares himself perfectly satisfied with the result of the operation and does not desire any further attempt made to restore the urethra.

Case II. A boy six years old was brought to the dispensary with the history that the day before in play his brother had struck him on the head with a hoe and since then he had not been able to walk. I found that both legs were paralyzed, and, on exploring the scalp wound on the top of his head, which was just about in the middle line, I found a depressed fracture. The wound was filled with a plentiful supply of ashes.

I removed with chisel and mallet several loose pieces of bone which were pressing against the duramater, but apparently had not penetrated it. I did

not dare to put these pieces back as I felt sure the wound would suppurate. About the third day the little fellow began to regain the use of his legs, and in a remarkably short time could walk as well as ever. The wound healed by granulation.

Case III. More than a year ago a woman came to the dispensary with carcinoma of the breast. The entire breast was removed and the incision extended into the axilla, but the most careful search failed to reveal any enlarged glands, so the axillary fat was not removed. She made an uneventful recovery, and when she left she was cautioned to return immediately if anything like a lump appeared in the scar.

She came back the early part of the year with a nodule in the old scar and an enlarged gland in the axilla. She said they had been there for several months, but on account of illness in her family she was unable to return sooner. The nodule was excised with a good margin of apparently healthy tissue, part of the pectoralis major was removed and the axilla thoroughly cleaned out. She has gone home now for the second time.

Unfortunately in cases where the disease recurs locally after operation it is apt to recur also in the bones and internal organs.

I remember a case that I saw in a hospital in the United States. A woman came to be operated on for recurrent carcinoma of the breast. The nodules in the old cicatrix were removed and the axilla cleaned out. During her convalescence, the nurse one day turned her over in the bed. She gave a scream and complained of intense pain in the right leg. On examination a fracture of the upper third of the femur was discovered. She gradually became weaker and weaker and within a month or two she died. *Post mortem*, the femur was found to be the seat of the extensive carcinomatous deposit. This case made an indelible impression on my mind, and I always think of it when I have a case of carcinoma of the breast.

REVIEW.

Disinfection and Disinfectants. A Practical Guide for Sanitarians, Health and Quarantine Officers By M. J. Roseman, M.D., Director of the Hygienic Laboratory and Passed Assistant Surgeon U. S. Health and Marine Hospital Service, Washington, D. C. Blakiston's Son and Co., Philadelphia. Price \$2 net.

Among the blessing that fall to the lot of the editor on the frontier of medical civilization is the receipt of an occasional book from some enterprising but none the less kindly disposed publisher.

When anything comes from the pen of any number of such a conscientious hard working body of high caste professional men as the Marine Hospital Service contains, it is very apt to be worth reading and Dr. Roseman's book is no exception to the statement. It is convenient in size, admirable in arrangement of its subject matter and clear and concise in statement.

The book opens with a very readable introduction on the nature of what he very happily designates as communicable diseases, their true cause and position in the pathological world and a brief statement of the means for their prevention and destruction. The first chapter is devoted to the physical agents useful in the great warfare in the following order: Sunlight, Electricity, Burning, Boiling, and Steam. For the second, Electricity, there is so little utility that there seems hardly an excuse for mentioning it except that in a thorough treatise on such a subject none of the known means ought to be left out. Steam naturally has the most space given to it, and there are very neat illustrations of sterilizing apparatus from the simple Arnold sterilizer of our hospital days to the elaborate and costly quarantine steam chambers big enough to sterilize a family at a time.

In chapter second the gaseous disinfectants make their *début*. Here our old friend *sulphur* and our new one *formaldehyde* naturally play the leading roles, and more neat and interesting apparatus is shown, which makes us wonder if it would be possible even with such things to disinfect a Chinese village, and also how long it would be before our obituary notices reached home after the attempt.

Chapter III begins with the general consideration of the conditions necessary for successfully using chemical solutions and the methods by which they should be employed. *Bichloride* of course heads the list, followed by *carbolic acid*, the *cresol* group, *formaldehyde*, *pemanganate*, the *lime compounds*, *ferrous sulphate*, *zinc*, *chlorid*, and the *soaps*. The action of each is carefully weighed in the balance of the most thorough investigation and their merits and demerits judged not only by the work they actually do but from the practical side of economy.

Chapter IV deals with insecticides applied to disinfection against the insect-borne diseases.

The chief offenders against whom the armament enumerated in this chapter is used, are the fly, the mosquito, and the flea, and now that the rat is recognized as a disseminator of the plague he comes in for a share of the odium and the sentence of extermination in time of epidemic.

In Chapter V, the methods of disinfection practicable for use of ships, houses, and objects of all sorts usually found therein, are taken up briefly and the articles classified in alphabetical order, which make a very convenient chapter for reference.

In the last chapter, on the disinfection for communicable diseases, there is a good deal of very valuable information in very condensed form. The diseases are not arranged in any definite order, which is perhaps unfortunate, though it may have been left so intentionally. But the information about each disease, its true cause when known, with its characteristics as a bacterian or

protozoan agency so clearly described with the definite directions for its destruction, or rendering it innocuous, leave little to be asked for. Dr. Roseman emphasizes a fact that is often forgotten, that it is the mild and unsuspected cases of these communicable diseases that are often more potent sources of danger than the more severe ones against which the community, if intelligent, is on its guard.

Here, in this great country, where the community is not on guard against disease of any kind, the pity and the hopelessness of being able to instill such ideas is well-nigh overwhelming. Yet in spite of the temporary depression of spirits it causes, such a book is an inspiration to us all, and we can but feel that such a work has a helping hand for us who are striving to bring the light of science and healing to those who know not and regard not its laws.

Report of the Municipal Health Department of Shanghai.

Right in line with the above work, we receive the Annual Report of the Health Department of the Shanghai Municipal Council. The subject matter therein does one's soul good to know—that such progress in sanitation and preventive medicine has been made in the Far East. The manufacture of our own vaccine and rabies and diphtheria antitoxines are of inestimable value in a community of this kind where we must by force furnish our own civilization with all its accessories. During the year that has just passed the epidemics of cholera and scarlet fever did much to swell the mortality record. The present year so far has been remarkably free from disease. For the week ending June 6th, 1903, only one death from communicable disease was reported at the health office, and that was diphtheria.

The amount of sanitary inspection of markets, dairies, laundries, streets, and the care with which sanitary regulations are being enforced, is such an object lesson that the Chinese, stoic and lethargic though he is, must ask himself, is there not good in all these things? With such an efficient agency for the prevention and alleviation of disease as the Municipal Health Department, can the example be in vain? We believe not, if we believe in the ultimate triumph of knowledge over ignorance and good over evil. With the gospel of health or with the teaching of the Master it must be "precept upon precept, line upon line, here a little and there a little."

HOSPITAL REPORTS.

It is always a pleasure to receive the reports of what others are doing. The first report to come to hand was Hangchow Medical Mission, C. M. S. It seems almost incredible that so much work can be carried on by so few. Dr. Main must surely have an efficient native staff to enable him and his

colleagues to care for such an extensive work, and the spirit of the report setting forth the needs as well as what has been accomplished, is worth more and gives more real ideas of what the work is than pages of statistics could possibly do.

We can give Dr. Main and his colleagues no higher appreciation than by expressing the devout wish that there ought to be hundreds of men where there are only scores doing such work as they are doing and in the same spirit of consecration.

The Tooker Memorial Hospital, Northern Presbyterian, under the charge of Doctors Frances F. Cattell and Mary E. Fitch, sends us a very readable and encouraging report from Soochow, covering its work from the opening of the hospital in October, 1901, to September, 1902.

The hospital has had a very useful beginning and ought and will do much to relieve the untold suffering which exists and will exist in this great land so long as sin and superstition and ignorance are the standards of living. The total cases treated were 4,433, of which 105 were in-cases, 3,172 dispensary cases, and the remainder divided among the out-stations and visits to patients' homes.



Medical and Surgical Progress.

Skin Diseases.

Under the charge of KATE C. WOODHULL, M.D.

Acids internally in Pruritus.—Prof. H. Leo, of Bonn (*Semaine Medicale*, XXII, No. 51) recommends a trial of *hydrochloric* or *sulphuric acid* in all cases of generalized pruritus of obscure origin, whether there be alkalinuria or not. Some time ago he was called to a man suffering for more than a year from very intense generalized pruritus. Nothing abnormal could be found save an alkalinity of the urine due to an increased elimination of phosphates; so the doctor ascribed the pruritus to hyperalkalinity of the blood. Accordingly he prescribed a 50 per cent. solution of *hydrochloric acid* in doses of ten drops every two hours. As a result the pruritus diminished in intensity and the urine became clearer. After several days a one and a half per cent. solution of *sulphuric acid* was given, a table spoonful every four hours, and still the strength was increased to two and a half per cent. The pruritus soon disappeared completely. Dr. Leo has applied the same treatment with success in another case of generalized pruritus and in a case of vulvar pruritus. In these three cases the urine was alkaline, but in three other cases it was of normal reaction before instituting the treatment, and yet the results were very satisfactory. Of course there were some cases in which the treatment was not successful.—*Philadelphia Medical Journal*, March 14th, 1903.

Oil of Turpentine in the Treatment of Ringworm and Tinea Versicolor.—Leven (*Jour des Mal. Cut. et Syph.*, April, 1901) advocates the use of *turpentine* in the treatment of vegetable parasitic diseases, particularly ringworm and tinea versicolor. In the former it is applied to the patches on pieces of linen, night and morning,

while in the latter disease it is rubbed in daily for five minutes. At about the end of six days a certain amount of dermatitis ensues, which is followed by epidermal exfoliation. The skin is then treated with some simple emolient application.—*Philadelphia Medical Journal*, January 10th, 1903.

The same journal reports the following two instances of eruptions following the ingestion of drugs:—

An Eruption from the Ingestion of *Salicylate of Soda*.—Morrow (*Brit. Journal Derm.*, November, 1901) records a case of dermatitis from *salicylate of soda* occurring in a woman, aged twenty-five, who was suffering from acute articular rheumatism. The patient was taking six to eight gm. a day, when at the end of forty-eight hours an eruption, consisting at first of erythematous patches, later surmounted with vesicles, appeared on the forehead, gradually spreading over the entire face. The eruption persisted until the tenth day. The *salicylate* was discontinued and the eruption disappeared four days later. Some days later the administration of *salicylate of soda* was resumed, and two days after this the eruption reappeared, fading again upon the cessation of the drug.

Quinine Erythema.—Robey (a case of dermatitis medicamentosa. *Boston Medical and Surgical Journal*, April 3) reports a patient suffering from intermittent fever who experienced an outbreak of erythema each time *quinine* was taken. Three hours after the ingestion of this drug a little redness appeared on the face and hands; at the end of five or six hours the erythema became generalized and was accompanied with intense

itching. On the following day the redness faded and on the fourth day a desquamation in large flakes began.

X-ray Treatment in Acne and Sycosis.—Dr. Wm. Allen (*Journal of Cutaneous and Genito-Urinary Diseases*, May, 1902) contributes interesting data upon the subject, an ever widening one, of the X-ray uses. He has chosen for his field acne and sycosis a welcome departure from the somewhat overworked cancer experiments. Darier and other French observers have shown in their studies of alopecia in guinea-pigs, produced by Roentgen rays, that the effects on the epithelial structures of the skin are to increase the vitality of the least differential skin elements, while the differentiated elements, nails, hair and glands, undergo retrogressive changes and atrophy (yet the X-rays are being used by some in alopecia ariata to restore the hair!) That these atrophic changes in the appendages of the skin occur, is abundantly confirmed in the microscopic changes in skin exposed for a considerable time to the effects of the X-rays. Another property of the X-rays is their inhibitory effect upon the formation of pus in the skin. This property of the X-rays has been shown in the reports of a number of observers, and the writer has repeatedly seen it illustrated in the clearing up of ulcerated surfaces exposed to the effects of X-rays. These two effects of X-rays—the atrophy of the cutaneous follicles which they produce and the checking of pus formation—furnish good pathological grounds for suggesting *a priori* the use of the agent in the treatment of acne. Observations upon this subject were first made in cases having slight acne, which were under treatment primarily for hypertrichosis, and following this hint Dr. Pusey began to treat intractable acnes by exposures to X-rays. Having used the method in a number of cases his results are interesting to note.

Case 1. Miss A., age 22.—This patient was put under exposures to X-rays in July, 1900, for hypertrichosis. On the chin and around the mouth she had an acne simplex of moderate severity. The lesions were usually indolent, inflammatory papules, without much induration and rarely with the formation of well-marked papules. During July, August, and September, 1900, this patient was under exposures to X-rays with a production of some dermatitis, and she has been under similar treatment at intervals during the last year. After the development of the first erythema her acne disappeared, and she has had no lesions within the last year.

Case 2.—Miss B., age 26. This case is identical in all essentials with Case 1. The treatment began January 17th, 1901, and the patient has had practically no acne since the production of the first slight erythema a year ago.

Case 3.—Miss C., age 26. Began treatment June 28, 1901, for hypertrichosis. This patient had suffered for a long time from a slight acne about the chin, with a considerable number of comedones and constantly occurring outbreaks of a few indolent, inflammatory papules. She had been more or less constantly under my care for several years for this acne, and I had never succeeded in relieving her of it. Since the production of the first erythema in September, 1901, she has had no acne lesions. All three of the above cases have been constantly under observation. They have had X-rays exposures at intervals during the last year for hypertrichosis, so that the effects of the X-rays upon the skin has been maintained. In all these cases the skin is smooth and soft and the result is satisfactory from a cosmetic point of view. There is evidently slight atrophy of the skin in each of these cases. In each there has been slight pigmentation of the skin produced at one time or another by the X-rays exposures, but in none of these has the pigmentation been persistent.

Seven further cases were treated for acne alone by the same method, and Dr. Pusey sums up as follows: The results are unique in my experience, so direct and constant in all of the cases that I think there is little room for doubt that they must be attributed to the effect of the rays. In no case thus far that has been under treatment long enough to expect results, have I failed to see a beneficial effect from the treatment. If any conclusion can be drawn from so small a group of cases the method is in advance over any other way of treating acne with which I am acquainted. I have avoided opening pustules and giving the patient antiseptic applications or other local treatment, and have also, as far as possible, avoided giving any internal treatment, in order that the effects of the X-rays might be as conclusively shown as possible, but there is, of course, no reason why these patients should not have the benefit of other procedures in their treatment while still having the exposures to X-rays. The indications to be met by the use of the X-rays are to cause atrophy of the dilated sebaceous follicles and the prevention of pus formation. In no case has there been any undesirable effect on the skin. I have in one or two instances seen pigmentation which persisted for a few weeks, but never any that caused serious annoyance. Occasionally the erythema has been quite noticeable for a few days. There is no other affection which I have

undertaken to treat with X-rays that has proved so tractable as acne. All of the cases I have exposed to a very weak light, using a soft tube and as weak a current as would illuminate the tube. The treatment has in each case been stopped at the first sign of pigmentation or erythema, and in no case has improvement failed to appear simultaneously with the development of these evidences of the effect of the X-rays upon the tissues. Of course in treating a cosmetic difficulty like acne the greatest caution must be used to avoid untoward effects, and the susceptibility of these patients to X-rays has been so marked in my experience that I do not feel like recommending the treatment without a warning against the use of any but the weakest light in carrying it out. A light that is just sufficient to show as a faint green glow in the tube has, in my experience, proven entirely effective. I am sure that such a light, when used with caution, is perfectly safe in these cases. In this connection Dr. Pusey also reports a case of sycosis, because the same two properties of the rays of inhibiting the formation of pus and causing atrophy of the follicles of the skin come into play. Photographs of this case, before and after treatment, show the beneficial results of treatment. The hair over the area exposed has failed to appear as yet.—*Medical Review of Reviews*, February 25th, 1903.



The China Medical Missionary Journal.

VOL. XVII.

JULY, 1903.

No. 3.

Editorial.

THAT MEMORIAL.

The most interesting matter of special concern to medical missionaries in China that has developed since our last issue is the preparation and circulation by the Central China Medical Missionary Association of the promised memorial to be presented to the Chinese government through the Consular Body in Peking, the object of which is to secure the abolition or at least a rebate of the duties imposed on medical stores imported for use in mission hospitals. The full text of the memorial is quoted in another column for reference on the part of those who have returned signed the only copy sent them.

With regard to the object of the memorial it is hardly necessary to say that it has the fullest sympathy of the JOURNAL and probably appeals forcibly to every medical missionary in China as well as to many others less vitally affected. The cost of imported hospital supplies, including freight, packing and insurance, is the heaviest burden of our hospital economics and limits our usefulness as well as taxes our resources to the utmost, and it does seem most reasonable that there should be no added weight placed upon our backs by the government of the very people we are taxing out strength to the utmost to serve.

The organization that has the matter in hand is the most active as well as perhaps the most successful of the local medical bodies, and it seems as if in all respects it is using the surest and most tactful means to accomplish its object, and we feel confidence in its discretion and force. I wish that we might feel as sure of success. Unfortunately the question is, as pointed out in our last issue, not a new one, nor is the attempt to solve it. The powers that be have been tactfully approached before on the same subject and the matter referred to those in authority,

bnt, alas, with unfavorable response. It seems that it proved a matter in which no interest, on the part of the officials, could be aroused and that there was a flat refusal to mitigate a tax which so evidently "came out of" the foreigner.

However there is so much reason in the thing, and reason usually prevails in the end, though that end is often postponed. We may win this time or we may open up the road towards victory. There is some disposition on the part of the central government, at the present time, to be accommodating in matters of secondary importance, and this is in our favor if we can obtain the attention and sympathy of our representatives in a matter which is to them also of secondary importance as compared with the big questions which center around Peking.

For those who have aspirations and have not been through the mill, we might add that there is not the slightest chance of gaining a local rebate on any particular shipment of goods. The thing has been repeatedly tried, and though those locally in charge are invariably courteous when approached on the subject, they are right in as invariably refusing to exceed their authority in the matter.

W. H. J.

SO CAN OTHERS DO!

The Central China Medical Missionary Association is in charge of the above matter, and deservedly so. We cannot say too much in praise of this fine body of men and women. Would that there were many others like it in China, not men nor women, for there are such, but physicians organized and working as local centres of scientific and professional progress and culture. The centre of this body is Hankow, but so earnest is the zeal thereof that it is able to draw some members from fairly distant cities. There is no better organized medical body in China, none which does more work or better work, none which makes itself felt so positively for good and none which uses its material to as good advantage. Some of our most interesting reports emanate therefrom and its members are among our most frequent contributors.

The meetings of this body are of the utmost professional interest, and something really good is presented every time. And yet in some ways it works at the greatest disadvantage, being far from the coast and centered in a district that demands the utmost of its members' time and energies in their individual posts.

Shanghai, which should be the easiest point at which to organize and operate a local center, has nothing to show at all. It once had a local society composed of a number of eminent men and women, but nothing is left thereof but a few none too pleasant memories. The claim is now made by those whose consciences are tender that there are "so many demands on one's time in Shanghai," and this is a true claim, for, in a sense, a busy city with its multiple interests and aims does, though we strive to avoid distractions, surely take up one's spare moments. Visitors, transient guests, lectures, public meetings and a host of other essentials and non-essentials draw us into the whirl, but this is merely excuse making, not absolution. For our own part our sins are painfully evident to us. I trust that every physician in China, outside of the happy members of the C. C. M. M. A. and the like, feels as guilty as we do in this matter, has as good resolves as we have had for some time past and will bring them to bear fruit as we have not done.

There should be at least ten such medical local organizations in China to-day. Peking, Mukden, Shanghai, Canton, Amoy, Hanchow, Soochow, Hankow, Nanking (and others) should be so locally organized as to develop to the utmost the local interests of their work, and each center should stand as a chapter in the China Medical Missionary Association which represents them all and through the JOURNAL seeks to unite the whole medical missionary body.

We have in Hankow a splendid example of what has been done and can be done by those who are in earnest and realize the immense gain to themselves and others which the conscientious sacrifice of a few hours a month can accomplish.

W. H. J.

SIDE LIGHT ON A SHANGHAI MATTER.

There has been a spirited argument going on in the *North-China Daily News and Herald* lately on—I really hardly know how to word it fairly, shall I say the righteousness or at least excusability of the individual foreigner in summarily judging and administering corporeal punishment on natives on the streets of Shanghai, for what is placed by different writers under such heads as slowness, stupidity, obstruction of the thoroughfare, obstinacy, carelessness, etc. Each such head and many others more and many less culpable are applicable to special cases, and we make no pretence of denying the facts that some Chinese are all of these, while most of them are unused to foreign laws, methods

and speeds of road travel, and consequently get in the way as often as they succeed in getting, as they attempt to do, out thereof. The lay view of the question or most of it has been ably argued and at such length that the editor of the *Herald* has, with reason, refused future space for letters on the subject, and we propose to go but briefly into the matter from the usual standpoints, for Mr. McIntosh has fully stated the reasons on one side and others have even more fully stated the excuses on the other.

Three ordinary phases of the question were not, in our opinion, clearly pointed out, namely the *unmanly cowardice* of striking a dog, chicken, or man whom one knows will not strike back. In Shanghai one is more certain of not being struck back at by a Chinese than one would be who would strike a two-year old child. It did once happen that a Chinese struck back. It is a matter of history that three drunken sailors once struck a Chinese and shoved him off the walk of the Garden Bridge. It was the one chance in a million, and the Chinese happened to be the official human punching bag of the Shanghai Boxing Club. The story is a sad one for the sailors. Less than a minute was the official time we believe. There never were three more astonished sailors in the world's history, and there was but that one true boxer in Shanghai. If only there were less Boxers up north and a few more of this style in Shanghai, there would be less lawlessness in both quarters.

Then there is the beastly vulgarity of losing one's temper so hopelessly on the public street. It is not considered good breeding to strike an equal; let alone an inferior(?), not to speak of grey hairs and blind men.

And thirdly, Shanghai boasts of its good horsemen and whips, and it is usually considered one of the essentials of good horsemanship to be able to avoid obstacles and drive safely; and the carelessness of Shanghai drivers and the consequently diminished culpability of pedestrians is certainly strongly suggested by the extraordinary number of runaways and accidents that occur constantly in this city.

And there is another view of the whole question that has not, so far as I am aware, been heretofore followed to its end. It concerns the mental attitude of the average foreigner in Shanghai and other Eastern ports towards the native, the attitude of carelessness for feelings, or disregard for opinions and usages and of general inconsiderateness, which begins with rudeness and ends in brutality.

Perhaps the best point in the East from which to see the advanced stages of this undesirable condition is the receiving ward of St. Luke's

Hospital, Shanghai. If the average foreign gentleman in the East could see the extremes to which daily discourtesies to the Chinese are carried by those foreigners who have not his breeding and self-control, and which are more than literally daily and painfully evident in our receiving wards, he would take off his hat in humility to every coolie he would meet for the next month and step aside to allow him to pass by. It has become almost our routine in the dispensary, in addressing an accident case to ask first how it happened, and in perhaps one-half the applicable cases the next question is, Did a foreigner do it? And again in perhaps one quarter the cases the answer is, "Yes." Now considering that there are only a few thousand foreigners in Shanghai and more than half a million Chinese, this routine practice of ours is, to say the least, suggestive of a peculiar state of affairs.

The commonest accident to Chinese feet is "run over by a carriage," often driven by a foreigner and more often by a native driving a foreigner. Gentlemen gently push Chinese off the pavement, sailors heat them often till the blood flows. One man "touches" a Chinese mildly with his whip to hurry him up, while another cuts through a boy's ribs in a fit of temper. The police are allowed to slap Chinese as a daily practice and then are ordered to arrest a Portuguese and perhaps later hang him (though I doubt the latter), because he rushed out of his house and murdered a Chinese who accidentally touched his parlor window in pulling on his coat.

I think that I am not exaggerating when I say that one-third the accidents that happen to the Chinese in Shanghai are directly or indirectly due to foreigners and to their carelessness of Chinese life and limb.

The Negro in America, a far lower order of human being than the Chinese, and the later comer, is incomparably more courteously treated than is the Chinese by the foreigners in the East. It is the spirit, the attitude of the foreigner in the matter that is at the base of the trouble. And the clearest example of this mental inconsiderateness that I have yet seen occurred only the other day, when a ship captain sent us four coolies who had fallen down the hold of his ship and all received severe injuries, one of them dying therefrom, and who wrote at the same time a note to say that he merely sent them to us for treatment but wanted us to clearly understand that the ship took no responsibility in the matter and would defray none of the hospital charges. (Our regular charges are twelve Mexican cents a day for each patient.) I believe that legally he was correct, but there are ways and ways of doing things. This is

not by any means the usual way, for the majority of business interests are most considerate of employees injured while at work, and such firms as Farnham, Boyd & Co. give them every attention and pay all their hospital charges most graciously.

W. H. J.

A REQUEST.

We wish we could bring home to the members of the Association the feeling that is in our hearts in regard to our relations with you. You have seen fit, for reasons best known to yourselves, to elect us editors of the Association JOURNAL. The majority of you in your journeyings to and from your centers of work pass through Shanghai, and yet we might as well be in Guinea for all that we see of you.

Now this is hardly fair. I grant that when you do go through you are generally in a hurry to reach your destination, be it the home land for your furlough, or the well-loved spot where you are doing your life work, which is to many as much home as any other place. But you have a duty to your colleagues that you must not forget. Here in the most accessible place in China are your editors, either or both of whom would be only too glad to meet you and talk over our common interests, with the many problems involved, and receive your sympathy and advice, and yet you go and come and we never, or rarely, see you. No doubt in many instances lack of time is a real obstacle, but often you are in the city for several days; why not look us up, or send us your card to let us know where you are, and at least give us a chance to show that we are fellow-human beings?

We will certainly be civil, and I believe you will find us positively friendly.

Two very valuable ends might be gained by this simple proceeding. It would be a distinct advantage to us to know you personally, and it might inspire you either from goodwill or compassion to take a more lively interest in the JOURNAL. It is a poor rule that wont work both ways. Dr. Jefferys may be found at 2B. Minghong Road, Hongkew, or at St. Luke's Hospital, Telephone No. 909, and the undersigned lives at St. John's College. Telephone 203.

C. F. S. LINCOLN.

FOUR MORE REQUESTS.

Shanghai is a place to which sooner or later nearly every physician in China comes, either on business or for pleasure or *en route* to some other port. Will you not all, when passing through Shanghai and when

possible, give the Editors of the JOURNAL the pleasure of meeting you personally either by calling on them or by telling them of your whereabouts and giving them the chance of calling on you. It is in every way desirable that the Editors should meet personally those whom they are trying to serve and have this opportunity of hearing from you of your special work and interests. Many, we have the honor of knowing already, but there are some of the older physicians we have not yet met and there are always new comers. We beg you to give us the privilege of meeting you all.*

Will you be good enough to see that the Editors always receive a copy of your reports. These are of extreme interest to us and to all and yet we sometimes fail to see them. And IF YOU HAVE ANY GOOD CUTS IN YOUR REPORTS do let us reproduce these in the JOURNAL in making extracts from your reports. We shall take the best of care of them, pay all postage and return them in good condition.

Will you send us any or all photographs taken by you, either of cases, of hospital buildings, of operating rooms, and other matters of professional interest. And if you have no time to write at length, just make a few notes on the back and we will use them to great advantage.

Will you please WRITE MORE FOR THE JOURNAL if you wish it to be of real interest and representative of us all. A journal written by the editors is the poorest of the poor and always narrow in its point of view, and it is mighty hard on all concerned.

W. H. J.

* This and the preceding Editorial were written by the two editors without previous consultation, and we have allowed them both to go in, that you may realize the sincerity and positiveness of the same desire expressed in both editorials.

In answer to questions on the subject of the Medical Conference to be held in Kuling in August, we have been furnished with the following information by Dr. Booth, Secretary of the C. C. M. M. A., who has charge of arrangements:—

WESLEYAN MISSION, Hankow, June 6th, 1903.

DEAR MR. EDITOR:

Re the Medical Conference to be held at Kuling this autumn, the following particulars may interest your readers:—

(1). Date—either two days preceding or two days in week following the landrenters' meeting (Friday, August , 1903).

(2). No delegates are expected, but any and all are welcome. All medical residents at Kuling are expected to give their hearty support to make the meetings a success.

(3). No special arrangements have been made for the presence of the officers of the C. M. M. Association, but it is hoped that any present on the hill during the sessions will give their aid.

(4). I cannot say whether the Conference will have any authority to appoint committees, etc. The Ex-president of the C. M. M. A. was asked last year to arrange a conference through the medium of the Central China Branch of the C. M. M. A. Whether such official initiation is sufficient to warrant any definite action will remain an open question. The discussion on the Central China medical school is certainly but one of feasibility.

(5). Question of locality of the school will be discussed.

(6). As far as I personally know there is no "thought of a co-education scheme" in the "minds of the agitators of the Central China College."

(7). *Re* the question of affiliation with existing colleges and schools, in case of the school going to Nanking, Soochow, or Shanghai, I cannot say anything one way or the other. The Central China Branch of the C. M. M. A. have been principally concerned in either Hankow or Nanking as the proposed centre. Such a question will need careful treatment.

(8). The following is a sketch of the programme:—

Discussion.—"Asepsis and Antisepsis," opened by Dr. Woodward, American Church Mission, Nanking.

Discussion.—"The Microscope as an Aid to Diagnosis," opened by Dr. Logan, Chang-teh.

Discussion.—Central China Medical School.

Location—Dr. Gillison, L. M. S., Hankow.

Language—Dr. Hodge, W. M. S., Hankow.

Curriculum, etc.,—Dr. Gillison.

Finances—Dr. Hart, M. E. M., Wuhu.

Discussion.—"Methods of Medical Mission Work," opened by Dr. Beebe, M. E. M. Nanking.

I am, very sincerely yours,

R. T. BOOTH.

The following is the text of the letter and memorial recently circulated among all medical missionaries in China for consideration and signature. Our latest advices are to the effect that 226 were sent out, and before the end of June 140 replies had been received. "As soon as all replies are in, the French copy, with signatures attached, will be forwarded to the Doyen of the Consular Body in Peking."

CENTRAL CHINA MEDICAL MISSIONARY ASSOCIATION.

HANKOW, April 18th, 1903.

DEAR ————— :

In response to solicitations from various parts of the empire in reference to the duty imposed on medical stores, the above Association has initiated a Memorial to be presented to the Chinese government through the Consular Body in Peking. I herewith enclose you a printed copy of the same, and shall be glad of your signature if you agree with the principle. Kindly affix two signatures, as we intend to attach one to the written Memorial and to retain one for reference.

A copy of the Memorial is being sent to every medical missionary in China. Please return to Dr. R. T. Booth, Wesleyan Mission, Hankow, by return post,

And oblige,

Sincerely yours,

R. T. BOOTH,
Hon. Secy.

To H. E. EDWIN H. CONGER, Esq.,

*Envoy Extraordinary and Minister Plenipotentiary of the U.S. A.,
Doyen of the Diplomatic Body at Peking.*

The humble petition of the members of the China Medical Missionary Association sheweth :—

1. That your petitioners are medical men and women practising in China in hospitals and dispensaries established by European, American, and Chinese subscriptions, to provide medical and surgical aid to the Chinese, such aid being given either gratuitously or for a nominal fee.

2. That the initial cost of establishing these hospital and dispensaries and the annual cost of maintaining them, is very large, as thousands of Chinese patients are treated annually ; many lives being saved and untold suffering relieved.

3. That the duties levied on imports under the new Commercial Tariff will be a serious burden to the finances of these hospitals and dispensaries, as almost all their drugs, dressings, instruments, and appliances are of necessity imported from other countries. The burden is the more grievous, as hitherto all such drugs, etc., have been admitted to China duty free, and the estimates of expenditure have not allowed any margin for the payment of duty. It is not easy to secure increased voluntary contributions to meet a claim of this kind, and the inevitable result will be that any sum paid in duty will have to be taken from funds otherwise available for benevolent aid to the Chinese.

4 The Chinese themselves regard it as a meritorious act to grant indulgences to charitable institutions, and surely the hospitals and dispensaries, conducted without cost to them, are as worthy of consideration as the institutions which they themselves finance.

Your petitioners therefore pray that Your Excellencies will bring this their petition to the notice of the Chinese government and ask that, on production to the Customs' officials of an affidavit, sworn by the consignee or his representative before a Consul of the nation to which he belongs, stating that the goods in question are to be used solely for the purposes of a hospital or dispensary established to provide benevolent medical and surgical aid to the Chinese, the goods in question shall be admitted duty free.

And your petitioners will ever pray, etc.

Hospital Reports.

Hangchow Medical Mission, C. M. S. "The year under review has been a busy one, and there has been decided growth and development in every department, but it has been by no means sunshine all the time. We have had inward strain and outward trial in obeying the call of suffering humanity, which during the cholera epidemic was a very loud one. However, when under the cloud we tried to keep smiling as in the sunshine. . . .

Too much stress cannot be laid on taking a *personal* interest in the patient and listening attentively to what he says about himself; we must not be intolerant of talk that serves no purpose, as a Chinaman delights in describing his sensations (which are often difficult to understand) and laying the whole history of his case before you, his having consulted the gods, suffered much at the hands of many physicians, swallowed pounds of medicine, spent all his money, etc., etc. What he says may be useless, but it is not *useless* to listen, as it gains confidence and that is half the battle. . . .

The Chinaman does not as yet recognise the danger of infection, or perhaps to speak more correctly, does not seem to see that there is any possibility of prevention. It is not an uncommon sight to see a man covered with small-pox, at the most infectious stage, sitting sipping tea with his friends in a crowded tea shop. Cholera visited us in June and did not finally disappear till the end of September. During all our long residence here we can remember nothing like it, and we hope never to have to pass through such a time again. Hundreds died in a day, and not less than 10,000 coffins were carried

outside the city; accurate statistics are difficult to obtain where no official registration of deaths is kept; they seem to think there is no immediate danger of the race becoming extinct. Many buried so many members of their family that they could not buy coffins, because the prices rose rapidly when the epidemic was at its height. In fact the demand for coffins at one time was so great that they could not be had at all, and many dead bodies were simply wrapped in ordinary straw matting and deposited at the gates of the public charity burying ground. For some days the stench was so appalling that I have seen men falling down, being overcome by it, and in visiting patients in the city I have seen as many as seven dead bodies lying in the streets in one day. It is usual to keep the confined dead for some time in the house and at intervals perform certain rites which are supposed to insure a happy entry of the deceased into the spirit world. This custom was only adhered to by a very few, and nearly all were carried outside the city and placed on some waste piece of land, but only in a few cases were they buried. The signs and symptoms of the disease seemed well marked in some cases, while in others there was nothing upon which to base a reliable diagnosis. The epidemic was a severe one; many were cut down suddenly and unexpectedly before there was time to summon medical aid. Death often took place after a few hours' illness; patients who walked to the hospital died in the consulting room. The people were thoroughly scared, and many of the rich classes shut themselves up in their compounds and had no communication with the outside world; others went to homes in the

country, while others hired old women to chant prayers to keep the scourge from their doors. It would take a long time to tell of the various methods of treatment. . . .

After the cholera had disappeared we expected a little respite, but no sooner had it left us than typhoid, dysentery, and malaria fever were upon us, and in October and November we had more work than we had strength for. . . .

The new dispensary at the Settlement was opened in August. . . .

The new Opium Refuge was a great boon and a blessing to the ninety-one who came to us with their minds made up to be cured of the enslaving habit. . . .

Through the great kindness of the Mission to Lepers we were able to rebuild and enlarge and very greatly improve the Lake Leper Home, so that we can now accommodate all the lepers there, where they enjoy fresh air, lovely scenery, fishing, boating, hill climbing, and gardening, etc., etc.

The Convalescent and Fresh Air Homes were well occupied and several cases of consumption underwent *open air* treatment with most satisfactory results. The beneficial effects of pure air on some of the symptoms of phthisis is very striking as well as gratifying to the patient."

St. James' Hospital, Ngankong. "The main hospital building is a two-story brick structure, eighty feet long by thirty wide, having a covered verandah extending the whole length of its eastern side. The gateway, a prime feature in Chinese architecture, is a very striking one, thirty feet high, with graceful pagoda-like roof of several tiers, and is embellished with the grotesque brick and stone carvings and tinted landscapes, in which native decorative art takes delight. It invites a favorable comparison with the approaches to other public institutions in the city. . . .

In the past year over ten thousand treatments have been given in the dispensary to thirty-three hundred patients, while three hundred and twelve cases were cared for in the wards; of these thirty-eight were female. It has not been a rare thing to see over one hundred patients a day, and to perform from three to six operations under anaesthesia. Quite two-thirds of all the diseases treated were directly caused by filth, immorality, or malpractice. Let us not dwell upon the sad details. The fact alone will bear witness to the depths of ignorance, superstition, and sin that make it possible. . . .

The pressing need is for hospital extension. The amount of work done in the first year of this hospital is much above the average of hospitals in China, while its capacity ranks it with the very smallest. Quarters intended for twenty-five patients have been forced to accommodate thirty or even more. But the church's opportunity will not be fairly met until this capacity is increased to one hundred. To do this will require for land, building, and equipment about ten thousand dollars."

Medical Missionary Society's Hospital, Canton.

"It is with pleasure we submit herewith a brief report of another year's work. There has been no interruption in the routine work of the hospital. Many important operations have been performed and the work of healing, combined with the Christian influence exerted, has had its effect upon those who came to the hospital. The tendency of the Chinese is to adopt Western methods of healing in place of their own crude methods which have so often caused the sacrifice of life and happiness. Among the rich and poor alike, where they recognize dangerous illness, the foreign physician is largely sought after, for they know they will find sympathy and help. The serious

nature of many cases brings a responsibility which often weighs heavily upon the physician and calls for the very best he can do.

Some improvements in the premises and hospital outfit have been made during the year. The main dispensary has been thoroughly renovated, additional light and ventilation with a cement floor and enlargement of dispensary accommodations have proved of great value and added to the efficiency of this department. Early in the year a large portion of the upstairs wards in the men's department was relaid with glazed tile, rendering those wards very desirable for patients from a sanitary standpoint. The rebuilding and enlargement of one of the outbuildings was also found necessary, so that the expenditure in the line of general improvements has been more than usual. The comfort and safety of patients has been greatly enhanced by a more liberal supply of bedding and clothing. The difficulty of securing permanent wardmasters and the help necessary for the care of ward supplies have limited to some extent the expenditure in this line which was provided for the first of the year, part of the grant being carried forward to the new year.

On the first of October Dr. Paul J. Todd, sent out by the American Presbyterian Board, was welcomed to the working force of the hospital, and he is now busily engaged in the study of the language. Dr. Todd is well equipped for the work before him and possesses those qualities which insure successful work among the Chinese. In the summer Dr. C. C. Chan resigned from the hospital work on account of ill health and to accept an easier and more lucrative position. His place is at present being well filled by our native house physician, Dr. Nye Sik-pang, who has had a wide experience in the practice of medicine.

The work in the women's department has included many interesting cases. The two native women assist-

ants in connection with this work are worthy of special commendation for their faithful work and skilful management of obstetric cases, both in the hospital and out-practice. Owing to pressure of work the foreign physician has had less time for visiting patients outside of the hospital, and one result of this has been to increase the office practice which bears an important relation to the hospital finances.

A special visit from the Viceroy of the Two Kwang, who seemed quite interested in the work of the hospital which he saw in detail, and the residence of an ex-Governor as in-patient for some weeks, are indications that the better classes are looking with more favor upon Western medicine and surgery

Simple Ascites.—This case is remarkable, in that it illustrates how at times the human economy may adjust itself to a pathological condition which lasts for nearly a life-time. In the seventh year of the reign of Emperor Tung Chi (thirty-four years ago), Mrs. Chung first came to this hospital for the relief of abdominal ascites. Since then, each year she has presented herself for the same trouble, and she is now known as our hospital annual. She is sixty-eight years of age, and except for the return of ascites each year, usually more marked after the cool weather, she enjoys fairly good health, although considerable deformity of the chest has taken place as a result of the great distension she has been subjected to. She appeared as usual last April and had forty pounds of serum removed from the abdominal cavity, and in ten days insisted upon returning to her home. For six months after operation she declares she is quite relieved, and that it is only during the cool weather the trouble returns.

Careful urinary analysis fails to reveal any variation from the normal, and no abnormal condition of the liver or heart can be detected.

Ovariectomy.—Two cases were operated upon in the latter part of the year;

neither case presenting any very striking features. One was that of a girl aged twenty years, who had been tapped about a year previous. She was greatly reduced in strength, only weighing about ninety-eight pounds before operation; the tumor, a unilocular cyst, after its removal, weighing fifty and one-half pounds. Firm adhesions along the right parietal wall had to be severed and also some small attachments to the omentum. At the end of the second day the patient went into sudden and fatal collapse; post mortem examination showing the direct cause of death to be due to secondary hemorrhage, combined with exhaustion. The other case was in a more favorable condition; the tumor, a multilocular cyst of twenty-eight pounds in weight, being removed without difficulty, and the patient making a good recovery. Dr. Katherine Myers ably assisted the hospital physicians in these operations, and to her we are much indebted for the skilful management and care she exercised before, during, and after operation upon these cases.

Monstrosity.—This case was that of a boy four years of age, whose development was in every way normal, and who was brought to the hospital for the removal of a growth loosely attached opposite the lower lumbar vertebra and sacrum. The mass was congenital, and consisted of a fetus, in which development had been arrested early in the fifth month of intra-uterine life. The cutaneous surface with some of its appendages showed complete development, hair was growing from the scalp, the early formation of the cranium could be made out, and on one foot a toe-nail, similar to that in the living child four years old, was present. The cutaneous surface, which was contiguous with that of the living child, showed no line of attachment or demarkation corresponding in development. The Roentgen rays revealed the cartilaginous formation of a considerable portion of the skeleton, more particularly the cranium and extremi-

ties. A deep double fold of skin, thin and delicate, enveloped the main portion of the trunk. A broad attachment to the living child extended from the anterior portion of the trunk. The mass was removed without difficulty; an incision six inches in length being made parallel with the sacrum and lower lumbar vertebra, two principal arteries and one vein being severed. In the attachment and extending close to the spinal column, but not adherent, was a pouch-like projection apparently corresponding to the rudimentary formation of the alimentary tract in the half developed fetus. The weight of the mass, after removal, was four and three quarter pounds, length twelve inches and greatest circumference seventeen inches; the specimen being preserved in the hospital museum. The patient made a quick recovery and seemed very happy over being relieved of the burden his little life had carried.

The Roentgen rays continue to be of great practical advantage, especially in cases of gunshot injury and fractures. One case of extensive lupus exulcerans was placed under treatment with the rays, but the patient did not remain long enough to obtain a complete cure. . . .

The general arrangement of the hospital work is here given for the convenience of those who reside in Canton.

Daily ward visitation—6 a.m. to 8 a.m. and 4 p.m. to 5 p.m.

Daily office consultations—9-10 a.m. and 3-4 p.m.

Out-patient, clinic—Mondays, Wednesdays, and Fridays, 10 a.m. to 1.30 p.m.

Operating days—Tuesdays and Thursdays, 10.30 a.m. to 1 p.m. Wednesdays, 2 to 4 p.m."

**Chungking General
Hospital, M. E.
Mission.**

"In March, 1902, we moved our medical work into the new women's hospital preparatory to tearing down our old hospital and re-

building. This new building has given us a better opportunity for doing good work than we have ever enjoyed before. The plan of the building is excellent, and is without question the best building west of Shanghai for the treatment of women and children.

We have had the pleasure of welcoming Miss Dr. Edmonds during the year. She expects to take over charge of the women's work soon, and we have no doubt that this branch of the work will greatly increase with a lady doctor to care for the patients. . . .

It is a credit to the Mission and no less so to the city in which it is located. The building stands on the site of the old hospital buildings, which is one of the best, if not the best, in the city, located in a bend on the city wall. It has three sides open to cool and fresh breezes which blow off the Kialing River, which flows 300 feet below. It has the advantage of being in and still out of the city. . . .

The first floor has office, native reception room, chapel (which will seat about 125 persons), drug room, pathological laboratory and museum; also eye ward and two medical wards (one large and the other small), three private rooms, bath-room, and store room.

The second floor contains dental room, operating room, anesthetic and dressing room, sterilizing room, one large surgical ward, three small surgical wards, bath room, two private rooms for natives and three private rooms for foreigners. The third floor contains lecture room, dark room, eight private rooms for patients and nurses, and for the house staff, one large ward, bath room, store room, linen closet, and isolation ward. A large corridor bisects the building lengthwise on each floor, a smaller corridor, extends through the main building at right angles to the main corridor, a hollow square from the basement to the roof, is lighted by a large sky-light, which not only furnishes light but also ventilation. There are six flights of stairs, each four Chinese feet wide, from the

basement to the upper floor, and a rear stairway from basement to upper floor. The building is furnished with an elevator, which will be used only as a dumb-waiter at present. The machinery for the same was brought from America. Each floor is supplied with speaking tubes to the basement, which we hope will do away with unpleasant sounds constantly disturbing the quiet of the hospital. The building is surrounded on all sides by wide verandahs, and in each gable end is located an alcove, which not only improves the artistic appearance of the building but also affords a pleasant view of the surrounding country.

The entire building, which will cost, exclusive of furnishing, Taels 11,000.00, is a memorial of several persons in the home land, and we trust that it may fulfill the highest expectations of our many kind benefactors. . . .

With this excellent new building we hope to be able to do a more effective work for our Master in the future than we have in the past. Nearly 700 persons were treated as in-patients during the year; these 700 patients furnished us with over 18,000 days' treatment. The character of the work done during the year has been higher than any previous year. Among the number of major operations performed we had three caesarian sections, in which two mothers and three children were saved, and a record breaking ovarian cyst which weighed seventy-two pounds and six ounces. . . .

We have long realized that the greatest lack of hospitals in China was proper persons in the capacity of nurses to care for the sick. The Chinese know absolutely nothing about nursing, and it is with the greatest difficulty that you are able to convince them that as much depends upon the nursing as the medicine which is given. They have great confidence in medicine, but do not seem to attach any importance to the care of the sick. The training of Chinese

for nurses is one of the most difficult of tasks. In the past we have relied upon our medical students to do the nursing, but have come to the conclusion that in order to have this important work done as it should be, it is necessary to set apart those who have nothing else to do than care for the sick. In the beginning of the year three young men were taken on as nurses, who have written an agreement to stay with us three years. We hope to give them some practical instruction, and trust to be able to impress upon them the importance of this work.

The drug-store in connection with our work is more and more proving that it is a legitimate part of missionary work, and has a right to exist. We have met with those who thought that no missionary should engage in business, but we are thankful to say that by far the largest proportion who understand our object have commended the enterprise. The Chinese are so accustomed to "kiang" the prices when wishing to purchase, that it is quite out of the ordinary for them to meet with any one who won't "kiang," and I have come to the conclusion that they rather like it, if I am to take the increase of business during the past year as an indication that they have confidence in a one price store. Our sales during the year amounted to over Taels 8,000,00."

Statistics for 1902 of the London Mission Hospital, Hao-shih.

1900 the work was interrupted by a riot due to the general unsettled state of the country. Hospital has been conducted in native buildings up to the present. I am glad to say that we are now starting to build suitable premises, having received a generous gift from Rev. Robt. Dawson, B.A. of London, for that purpose. You all see we get plenty of surgery, and it has been much blessed of God. There

was one death due to operation, namely the lithotomy; the bladder wall was torn by the forceps and led to bleeding. An iliac abscess also died; we had refused him once, but he returned and, as I feared, ultimately died. There has been quite a run on these iliac abscesses deep down on the loin needing an opening back and front; also two appendicitis abscesses.

The number of iridectomies is exceptionally large and some have given splendid results. Probably the most useful was that on a child of three years who, from being blind, became able to see well enough to be able to chase fowls; it was a girl, so probably it has been God's means of saving that girl from a life of misery and shame.

We now find among the patients a wide knowledge of the gospel and its simple truths. In hospital prayers I have generally used the miracles and parables hoping they would get well acquainted with the Jesus of Peter, James, and John.

In prayers with the staff, I have hit on a most useful method and one that has been of great blessing to us. I have appointed each day of the week to one man to prepare for; the capable ones but suffice for the purpose. New Testament and Old are read on alternate days. The man responsible prepares his portion for the day; we read around, verse by verse, then he gives the meaning of what we have read in plain language; should he make mistakes I correct him; also he has commentaries to refer to in preparing or can ask me. He is not allowed to preach; only to give a literal interpretation. Sometimes I ask a few questions on the past few days reading, then I ask someone else to pray and we close with the Lord's Prayer. In this way we have gone through Genesis, Exodus, the Gospels and Acts, and I have never known the interest to flag.

I have been most deeply interested to hear the Bible expounded by un-

trained readers; sometimes the new light thrown on it has been most surprising. But in the main they seem to get exactly the same kind of sense out of it as do simple evangelists at home. I believe this plan is better than my expounding daily or the evangelist doing so.

The staff consists of an evangelist and his wife; the latter sees after the women; three students, three coolies, one cook, and a special man to mind the opium smokers. You will see that the number of the latter, eighty-four, is a very large one. The work, though hard, has great encouragements. About fifty per cent. *perhaps* remain permanently cured. Some have been enormous eaters. One man took three drams of raw opium thrice daily, followed each time by a bowl of spirits to hasten the effect. His cure was very simple as he went into a fit when the craving came on, and came out of it when it was over, so that he did not suffer at all.

LIST OF SURGICAL OPERATIONS.

Under Cocaine.

Eye:	Entropion ...	87
	Iridectomy ...	47
	Ectropion ...	7
	Cataract ...	3
	Hypopion, cornea } punctured	1
	Cauterising corneal } ulcer	3

Under Chloroform.

Bone:	Necrosis removed ...	25
	Dislocation reduced	4
	Fracture set, com- } pound	1
Amputa- } tion: {	Leg ...	1
	Finger ...	2
Excision:	Elbow ...	1
Genito } Urinary: {	Penis amputation ...	2
	Penis circumcision ...	15
	Hydrocele, radical } cure	1
	Lithotomy supra- } pubic	1
Rectal:	Rectal prolapse, at- } tempted reduc- } tion	1
	Fistula in ano ...	48
	Hæmorrhoids ...	3
Foreign body removed		2

Tumours:	Fibroma ...	3
	Carcinoma ...	2
	Adenoma ...	1
	Nævus ...	1
	Fatty... ...	1
	Enchondroma ...	1
Sinus:	Scraped ...	5
Ulcer:	Grafted ...	1
Abscesses needing anæsthetic, including four iliac abscesses and two appendicitis		41
Glands removed ...		11
Cut nerve united ...		1
Harelip repaired ...		6
Cicatrix ...		1
Obstetric. Forceps		2

One iliac abscess died.

One mother died. Seen sixth day and fetus putrid.

Simple fractures, teeth, small abscesses,appings, etc., were not tabulated.

GENERAL STATISTICS FOR EIGHT MONTHS.

Out-patients:	new, old, }	10,456
	male, female ...	
In-patients ..		240
Opium habit broken, about eight left uncured }		84

L. M. H., Hiau-kan. The report of the London Mission Hospital and Leper Asylum, Hiau-kan, Central China, is perhaps the most interesting of the last three months. We quote somewhat at length therefrom. In a personal letter Dr. Fowler writes that this cut, which we reproduce on account of its peculiar interest, does not represent all the inmates of the leper asylum as, at the time the photo was taken, many sick ones could not leave their rooms.

"The great event of the past year was the opening of the modified Chinese buildings, described in our last report as a dispensary and hospital. On that occasion our friends, the veteran missionary, the Rev. Dr. Griffith John, and Dr. Thos. Gillison, of Hankow, came out by the newly constructed railroad, and a large number of converts, native evangelists, and others met in the waiting hall to join in the opening service. From that day to this there has been a constant stream of patients—sick, halt and blind—to see the foreign surgeon. . . .



INMATES OF HIAU KAN LEPER ASYLUM, JANUARY, 1903.

As a matter of fact curiosity leads many to us in the first instance. Probably the chief factor, however, in bringing about the above large attendance is the idea, now pretty well established, that we can cure where the native doctors are powerless to help; in other words, we have what the Chinese consider "good luck."

All classes of Chinese society have visited us during the year and have been prescribed for or operated upon. . . .

It may strike some of our medical friends as curious that we have again to report no fatality in operative work. There is a reason for this, and we pass on the idea for what it is worth to others who, like ourselves, live away from the treaty ports. Our plan is never to refuse to operate on a male patient so long as he takes the risk upon himself. Thus, if a man comes in a condition in which operation would be more than usually dangerous, we honestly tell him the facts of the case and advise no operation. Should he still beg for it, we insist on his sending for some friends or relatives to consult with them as to what he had best do. Then follows much talking and arguing; friend after friend is called in, and usually it leads to the patient concluding that the advantages to be gained by operation are too small to warrant the risk. Sometimes, however, a case will come in so desperate in character that friend and patient alike urgently beg for an operation. We make it a "sine qua non" that there shall be one or more friends present at the operation in order to see fair play. We could tell of curious remarks made by our spectators and of many fears expressed, lest the man should never wake again from the administration of the *chloroform*. The plan works splendidly. There is afterwards no suspicion that we have plucked out an eye or mysteriously abstracted blood or "virtue" or what not. The Chinese are wonderfully suspi-

cious and inventive, and we need on that account to do everything quite openly. If we remove any tissue—a tooth even—we offer it always to the patient or his friends. Did we try to keep it we might lay ourselves open to being accused of making medicines of it. The man is removed to the ward and we still demand that a friend shall remain with him until all danger of a relapse is past. In all cases when death has seemed imminent we have kept in mind the desire of every Chinese to die in his own home and have frankly told the man and his friends the condition of affairs. Acting in this way we have never heard a word of reproach when the patient was removed or after his decease. The plan, forced upon us in the first instance for self-protection, has relieved us of much anxiety, and, a thing not by any means to be despised in China, the good name and "luck" of the hospital has been maintained."

**Hiau-kan
Lepor Asylum.** Work among our lepers, as time goes by, becomes increasingly interesting and fruitful. As we endeavour to record the events of the past year the prevailing thought in our mind is one of great thankfulness that so many poor suffering mortals have benefitted by residence in the Asylum. We regret to state that the specific treatment for leprosy has yet to be discovered. The past year, like former ones, has given birth to several so-called specifics. At one time we hoped for the survival of at least one of the remedies, but experience has not warranted us in placing too much reliance upon any. We fear each will be like so many of its predecessors, only a palliative, and not a specific.

All that can possibly be done for the leper in the meantime is to succour him in his distress of body and give him all the comforts possible as he nears the end of his earthly suffering.

It is difficult for any of our home friends who have not been in the East to realise the fate that awaits many of the lepers living outside an asylum. A man so long as he can move about to beg, manages to keep body and soul together. He lives, it is true, the life of an outcast, and the portico at the door of some heathen temple is often his only shelter. When his disease becomes so bad that he is no longer able even to crawl, then his fate is sealed. With no one to pity, he turns his face to the wall and dies a miserable death from utter neglect and starvation. Such things as are common sights here would not be tolerated in the homelands. If ever by chance any such thing occurs there, the newspapers and public sentiment are up in arms at once. But in China it is nobody's business. Here it can be said with the utmost truth as was said of Israel of old: "There is no truth, nor mercy, nor knowledge of God in the land. By swearing and lying, and killing and stealing, and committing adultery, they break out and blood toucheth blood."

It goes without saying that, except among the Christians, the golden rule is unknown hereabouts, and compassion may always be regarded as a minus quantity.

This year our asylum has lost many of its oldest inmates. The cholera epidemic already referred to in the Hospital report laid siege to our place, and although we were able to save our poor fellows from succumbing to the cholera itself they were so enfeebled by its attack that afterwards more than a third of them passed from their weight of afflictions to their reward above. Although death is inevitable and comes sooner to the leper than to many, it is not without feelings of heartfelt grief that during the year we have bade good bye to this one and that one whom we had learned to regard almost in the light of personal friends. . . .

It has been our wish for some time to have one ward always open for

lepers which any missionary of any society in Central China may recommend or send us.* As soon as the buildings are completed we hope to send a circular to all our fellow-missionaries to this effect. We are certain from the remarks of many who have spoken to us about the matter that such a ward will be highly appreciated by medical and clerical missionaries alike.

The leper dispensary has, during the year, been more than usually patronised. It is a curious fact that during the past eight months tubercular leprosy has shown a very marked activity. The tissues have been invaded and nodules have formed with surprising rapidity. These nodules have, moreover, in many cases broken down quickly. From a medical standpoint it is interesting to note also that all who died during the year were the subjects of tubercular leprosy. The anæsthetic form of the disease has shown no abnormal symptoms."

* This should prove a great convenience to hospitals having no accommodation for leper patients.

Curriculum of the Medical School, St. John's College, Shanghai. The students attend the same classes in religious instruction as those in the science and arts course. All the instruction in this school is given in the English language.

FIRST YEAR.

Anatomy (Gray).
Physiology (Huxley).
Chemistry, Inorganic (Remsen).
Materia Medica and Therapeutics (Warner).
Histology.

SECOND YEAR.

Anatomy (Gray).
Physiology (Power).
Organic Chemistry.

Materia Medica and Therapeutics
(Warner).
Practical Chemistry (Jarman).
Physics (Jones).
Physical Diagnosis.
Pharmacology.
Pathology.

THIRD YEAR.

Dispensing and Pharmacy.
Medical, Chemical Laboratory.
Diseases of Children and Skin
Diseases.
Diseases of Eye, Ear, Throat, and
Nose.
Surgery.
Medical and Surgical Clinics.

Special Clinic—Eye, Ear, Throat,
Nose.
Caretaking and dressing.
Surgical Cases.
Obstetrics.

FOURTH YEAR.

Practice of Medicine.
Clinical Surgery.
Diseases of Children and Skin
Diseases.
Surgery.
Special Clinic—Eye, Ear, Nose,
Throat.
Caretaking and dressing.
Obstetrics.

Correspondence.

DEAR EDITOR: Your letter and the last JOURNAL came recently. I read every article and consider it a splendid number.

First Hospital for Hunan. Enclosed find a photo of our new hospital, the first one for Hunan I think. The building has eight feet of stone foundation, four feet being under ground. The walls are of brick and are fifteen and half inches thick. The outside dimensions of the building are $25\frac{1}{2}$ by $62\frac{1}{2}$. The wood used for both outside and inside was "sha muh" (杉木). The floors, windows, etc., are painted with Chinese varnish (漆). The verandah is covered with "P. B roofing", which enables us to have it much flatter than we could if tiles were used.

Downstairs is a large ward, a drug room, consultation room for outdoor patients, and a six feet hall, in which is the stairway leading upstairs. In the second story is the surgery, which has a skylight to receive the north light, besides two north and one east window, a laboratory with dark room adjoining, also four private rooms and two halls. The attic can accommodate a few patients in case of emergency. The cost of building, including stone walks and the repairs of old walls, is Hankow Taels 3,000.00. The building site cost 2,150 Taels. The work was done by the day. The workmen had never seen a foreign building (one mason excepted). All Chang-teh missionaries are strongly in favor of day by day work. We have found it cheaper and more satisfactory than contract work, while the work of supervision is the same.

The building site and furnishings are the result of our Sunday-school collections on two "Rally Days" in 1901-2.

Yours truly,

O. T. LOGAN.

CHANG-TEH, HUNAN, April, 1903.

Dr. R. T. BOOTH,

Editor "Medical Progress."

DEAR SIR: Since I saw in the last number of the JOURNAL under your department some notes on laparotomy

Three Cases of Laparotomy. as a practical mode of treatment in ascites, I think you may perhaps be interested in a few notes on three cases that have come under my observation within the last six months.

Number 1, a girl of about twenty, was not my own case, but I happened to be present at the operation. As I remember the circumstances she had a malarial history and an enlarged spleen. Her abdomen was very large, and though the fluid was not measured I think twenty pints would be a small estimate. The operation was a simple incision with evacuation of the fluid and closure of the wound. The interesting point is that when the patient was discharged from the hospital, about a month after operation, there was only a slight return of the ascites. This patient had never been tapped, I think.

Number 2 was a woman of thirty-five, whom I saw last spring as an outpatient, and whom I treated for a very much enlarged malarial spleen. She came into the hospital last November suffering severely from ascites. She was tapped, and soon after left the hospital, only to return in December. She was tapped again December 27th.

By the second week in January so much fluid had reaccumulated and she was so thoroughly miserable that she consented willingly to the suggestion that she undergo a laparotomy, though no promise was given of a brilliant result. Accordingly on January 14th Talmas operation was performed by Dr. Otte; an incision being made, the fluid evacuated and the omentum fastened to the peritoneum lining the

abdominal wall by four sutures. The wound was then closed and a firm abdominal bandage was applied. On the fifth day it was evident that the fluid was returning and by February 6th so much had reaccumulated that she was again tapped. She was also tapped on February 17th and 28th and on March 10th and 21st. The amount of fluid was not always measured, but estimating from the times it was measured, I should say, the average would be twenty pints. The patient became much discouraged, and on March 22nd left the hospital, and we have since heard that she died within three weeks of reaching home. Though the fluid returned so persistently after the operation that it could not be called successful still it was of interest to note that the superficial abdominal veins above the site of the laparotomy wound were very much enlarged, showing that circulation had been established between the omentum and the abdominal wall.

During all the time that the patient was in the hospital, medical treatment was directed to the reduction of the hypertrophied spleen, and when she left the hospital the spleen was appreciably smaller.

Number 3 is a very intelligent Christian woman, thirty-four years old. She has suffered from tuberculosis of the lungs for several years, and at the Chinese New Year I was called to see her and found her suffering from tubercular peritonitis. She came into the hospital, and after two weeks complained of discomfort from pressure of the fluid. I then performed a simple laparotomy, making an incision about two inches long and found the peritoneum freely studded with smaller tubercles. After evacuating the fluid—about six pints—and allowing air to enter, the wound was closed. Up to the present time, two months later, there has been no appreciable return of fluid.

Yours very truly,
ANGIE MARTIN MYERS, M.D.

Hope Hospital, Amoy, April, 1903.

Editor "MEDICAL JOURNAL."

In the name of the Hankow members of the C. C. M. M. A. I write to

A Protest re Dr. Stanley on Hygiene. protest against some of the statements contained under the section "Habits" in Dr. Stanley's article on Chinese Hygiene in the April JOURNAL.

Dr. Stanley may have been speaking purely from a sanitary point of view, and possibly has gathered his facts from his own practice.

His statements do not agree with our experience. If they are not contradicted they may do much harm through being circulated in the JOURNAL as if representing the views of medical men whose practice lies chiefly amongst the Chinese.

In our practice it is certainly *not true* that "prostitution with its evil train of disease is comparatively rare."

Spirit (Chinese wine) drinking is largely indulged in throughout China, and the Chinese form of drunkenness is comparatively common.

Stating that the evil of the drink habit is greater than the evil of the opium habit, surely is of little profit. Both are alike ruinous to body and soul. We do not agree with Dr. Stanley that "in comparison with alcohol the evil wrought by opium is trivial." We hold that the evil wrought by opium is terrible, and that it is mockery to say that "the opium habit is perhaps more nearly equivalent to tea drinking or tobacco-smoking," when it causes ruin to home, squandering of fortune, selling of wife or children, moral destruction, physical dilapidation. Why do hundreds come to our hospitals every year, paying to get rid of their vice, if the evil of it is no worse than tea drinking?

I am,

CECIL J. DAVENPORT,

Acting President C. C. M. M. A.

WUCHANG, May 29th, 1903.

DEAR MR. EDITOR:—

In your last number (April) you published an article which is, I

**Dr. Stanley's
Article.**

imagine, a cutting from Dr. Stanley's Annual

Report.

I am sorry that such an article should have been published in your columns without some explanation. Were our C. M. M. A. to give its unqualified support to many of the statements which Dr. Stanley has made in it, serious harm might be done. However as the article has been published, I trust that some good may result, and that opinions will be freely expressed on some of the remarks which Dr. Stanley has rashly, in my opinion, made.

I have not time to take the article paragraph by paragraph and note in passing the various objections which I desire to make. I shall merely take up the more important ones—those dealing with the moral aspect of the question.

In his paragraphs on food, houses, disposal of the dead, clothing, there are a variety of disputable points, but they sink into insignificance when we read his remarks on "Habits" and note his "Conclusions."

"Drunkenness is practically non-existent in China," says Dr. Stanley. "In comparison with alcohol the evil wrought by opium is trivial," so of course to reconcile these two statements he has to make a third, viz., "The opium habit is perhaps more nearly equivalent to tea drinking or tobacco smoking." To all these statements I wish to give an unqualified denial. I have only been four and a half years in China, but in that short time I have seen sufficient both in Shanghai and Hankow to convince me that drunkenness is truly existent in China. Only a Chinaman gets drunk and shows the effect in a different way to a European or American.

I have seen a fair amount of opium cases, acute and chronic, and have seen

some of the misery following therefrom, and while I cannot go as far as some have gone in their statements on the question, I can go far enough and say that opium is the curse of China morally, socially, and physically (although "opium produces scarcely any changes that can be recognised *post mortem*").

"Opium" says Dr. Stanley, "is perhaps the equivalent in China of alcoholism." I wish he had underlined *perhaps* and put some note of interrogation after it.

He doesn't say where the alcoholism he can compare it to exists, but I presume he means Europe and America, from his reference later on to tea drinking and tobacco smoking. Surely Dr. Stanley wouldn't admit that alcoholism and tea drinking were equally deleterious, morally, socially and physically to the inhabitants of those countries.

"Prostitution," says Dr. Stanley, with its evil train of disease, is comparatively rare."

Some people use '*comparatively*' in a very wide sense I imagine. I do not imagine that a single medical missionary could or would endorse such a remark as Dr. Stanley has thus made. One would imagine that Dr. Stanley had never seen Chinese patients. Yet I am told that he has an hospital under him, and I also learned, while in Shanghai, that close to one of his hospitals there is a street of about fifty houses, every one of which is a brothel!

Speaking from my experience in hospital work in Hankow during the last four and a half years, I am compelled to say "*that prostitution with its evil train of consequences is only too common!*"

I trust Mr. Editor that others will unite and give their opinion on the important question.

I have no time to add more, much as I should like to deal with some of the other points.

I am,

Sincerely yours,

R. T. BOOTH.

W. M. S., Hankow.

DEAR EDITORS: Though the greater part of Dr. Stanley's article on Chinese

The Chinese Hygiene Article.

Hygiene in your April number is in accordance

with the experience of those of us who live among the Chinese in inland cities, there are some remarks which can only be explained by the fact that the writer is Health Officer of the "Model Settlement." Chief among these is his statement that "in comparison with alcohol the evil wrought by opium is trivial; it is perhaps more nearly equivalent to tea drinking or tobacco smoking." I once thought less of its evils, for living in Chefoo, practising among the natives, I saw comparatively little of its awful work. Shroffs and compradores who have good food and healthy surroundings, suffer comparatively little.

Here, however, the picture is very different, though this does not reckon as a bad opium smoking city.

Homes are broken up, business ruined, constitutions wrecked, characters lost and consciences seared, and the sole reason given, both by the sufferers and their friends, is "opium smoking."

How often have we heard the Chinese speak of it as "*the curse of China*," and in scarcely less strong language it is described in the article *Morphinomania* in the "Encyclopædia Medica."

If little worse than tea or tobacco why are we—Romanists and Protestants, medical and non-medical mission-

aries—besieged with requests to help the sufferers break it off; and why are hospitals and asylums opened for the purpose? Can it be only or chiefly on account of its expense?

A Chinese merchant or statesman who lives in England, moving in better class circles, and who sees half that class frequently take wine, would naturally conclude that the evils attributed to alcohol are more or less mythical, for he sees little of them; but not so a Chinese sailor who spends a few weeks around the London or Glasgow docks. And so with opium and the evils of polygamous marriage.

The "flourishing prostitution of Europe" and Shanghai may be absent in the interior, but adultery and venereal diseases are very far from rare; the latter being among the commonest out-patient cases. On the majority of medical subjects Dr. Stanley's opinion would carry much weight, both with those in the home lands and those of us who have met him, but on this subject we who have seen so much of the evil must beg to differ.

Thanking you for so much of your space,

I am, etc.,

FRED. H. JUDD.

IAO-CHEO-FU, Kiangsi.

The Editors have purposely deferred remarks on Dr. Stanley's article that the comments of the Society might be noted. We shall speak editorially of the article in our next issue.—EDITORS.

BIRTH.

March 24th, at Mien-chuh, Szchuen, the wife of W. SQUIBBS, M.D., C. M. S., of a son, Robert Gowan Gillmor.

ARRIVALS.

March 28th, Dr. EMMA O. CLEAVER, U. S. A., for the Woman's Union Mission, Shanghai.

April 14th, Dr. D. CHRISTIE, wife and four children, U. F. C. S. M., Moukden (returning).

May 18th, Dr. and Mrs. A. M. WESTWATER, U. F. C. S. M., Liao-yang (returning).

May 24th, Dr. E. E. LEONARD, A. P. M., Peking (returning).

DEPARTURES.

March 14th, Dr. LUCY A. GAYNOR, A. F. M., Nanking; Dr. J. R. WILKINSON, wife and six children, S. P. M., Soochow, for U. S. A.

May 30th, Dr. W. R. FARIES and three sons, A. P. M., Wei-hien, for U. S. A.

May 31st, Rev. G. A. STUART and son, M. E. M., Nanking, for Europe via Siberia.

June 8th, Dr. S. S. MCFARLANE, L. M. S., Chi-chou, Chihli, for England via Siberia.

June 13th, Dr. A. LYALL and wife, E. P. M., Swatow, for England via Siberia.

June 19th, Dr. G. A. HUNTLEY and family, A. B. M. U., Hanyang, for England.

NOTICE.

We are glad to be able to announce that the printing of the new translation of Gray's Anatomy, using the revised medical terms, has been begun, and we expect to be able soon to send out the first of the three volumes, to those wishing it in advance. The price cannot now be given, but it will be reasonable for a work of this kind. Any desiring the first volume in advance will please send their orders, stating whether in brown or white paper, to "H. T. Whitney, M.D., Pagoda Anchorage, China." Both kinds of paper will be paged and arranged in foreign style, with English as well as Chinese headings; the white paper being printed on both sides and will be somewhat more expensive than the brown paper. Nearly one hundred new cuts have been added, making it thoroughly illustrated, and the General Anatomy, or Introductory part, has been quite fully translated, including much of the Histological matter, thus bringing the whole work as fully up-to-date as it is possible to do in a rapidly developing science.

H. T. WHITNEY.



ST. ELIZABETH'S HOSPITAL. SHANGHAI. (DISPENSARY IN F.O.R.)

The
China Medical Missionary Journal.

VOL. XVII.

OCTOBER, 1903.

No. 4.

Original Communications.

[All papers must be in the hands of the Editors two months before date of publication to insure their appearance in the following number. The editors cannot undertake to return manuscripts which are sent to them. A complimentary edition of a dozen reprints of his article will be furnished each contributor. Any number of reprints may be had at reasonable rates if a written order for the same accompany the paper.]

THE INCREASE.

(Z.)

1. We burn dim candles in the stifling fog
Of godless pride and stolid self-content :
Then lo ! we see the mists
Lifted,—and light prevails !
2. We sow the living seed in stony ground,—
Behold ! it grows to wisdom and the height
Of love to God and man,—
The flower and fruit of life.
3. We work with our poor skill on earth-blind eyes
An hour,—the light of God-giv'n faith streams in,
And lo ! the man born blind
Has seen the Invisible !
4. For golden human years lent (where the cost
Of rice measures men's lives, and time has yet
No hours) God's bank of life
Still pays a hundred fold.

5. Nor is there sacrifice at such a rate !
To spend one's meagre love through paltry days,
And find the years scarce hold
The wealth of love's increase :
 6. To give a cup of water to "the least",
And lift the eyes and see Him take and drink ;
Then, kneeling low, to feel
His hand upon the head !
 7. To keep the midnight watches through, in prayer
With dying men, while steal in service soft
The nurse's feet along
The ward : and at the call
 8. Of Dawn, to see Him smile through "dying eyes"
The farewell love which, to the end of time,
Shall light a weary world
Through Death's cold door to-day.
 9. Not only in "breaking bread" is Jesus known.
We find Him in the clinic, racked with pain,—
"An hungered, or athirst"
"In prison" or in death.
 10. Jesus ! Well spent were life,—to have Thee take
(Through one, the very least of Thy beloved,)
The cup and drink, then hear
Thee say the great "Well done !"
-

ON THE NATURAL POWERS OF RESISTANCE OF THE HUMAN BODY TO INFECTIVE ORGANISMS.*

By ERNEST C. PEAKE, M.B., CH. B. (ED.).

In the preparation of this paper I must acknowledge my indebtedness to the recent article on "Immunity," by Prof. Hans Buchner.

My subject—"The Natural Powers of Resistance of the Human Body to Infective Organisms"—is one, I think, which surely must, sooner or later, present itself very forcibly to the mind of every physician who comes to China. What a grand time the microbes have in this benighted land! They hold "high-carnival" in every city, town, and village of this, the Celestial Kingdom! When we think of the native ideas of sanitation and of the utter disregard to all precautions of any kind, not only in the matter of sewage and drainage, but also in all cases of infectious diseases, of the horrid cesspools and smells we are only too familiar with; of the overcrowding and lack of personal cleanliness and aversion to light and air that we see constantly in the homes of the people; and of many other horrors which could never be mentioned in detail,—when, I say, we think of these things, our respect is moved indeed for the powers with which men have been endowed by nature, enabling them not only to keep alive, but even to keep healthy, under such adverse conditions. The invisible enemy is ever about us, ever on the attack, ever watchful of his opportunity and quick to avail himself of any weak spot in the lines of our defences; while on the other hand, the forces at our disposal are as vigilant to rebel the intruder. Never flinching from their task, our defensive forces close in a death-struggle with the foe, nor does the conflict cease till they have driven the enemy from the field; or until they themselves, overwhelmed by superior numbers and unable longer to maintain the unequal strife, are forced to succumb. It is to these, as I have called them, "Natural Powers of Resistance of the Human Body to Infective Organisms" that I wish to call your attention this afternoon.

Our powers of resistance against the various infective bacteria vary according to the nature of the infective agent. Against some forms of infection the resistance is absolute; against others it is only relative, greater or less as the case may be. And the same holds good throughout the whole animal kingdom. *Each infective agent endangers the various species, varieties, and races of animals to a different degree.* The human subject appears insusceptible to cattle plague, fowl cholera, swine erysipelas, etc., whilst all animals are resistant to scarlatina, measles, influenza, and so on. Even closely allied

* Read before a meeting of the Central China Branch of the China Medical Missionary Association.

varieties may manifest great differences in susceptibility; for example, the field-mouse is very susceptible to glanders and tuberculosis, whilst the common house mouse is resistant. Even *racial differences* may play an important part. Algerian sheep, for example, are much more resistant to anthrax than are the races of European sheep. In like manner differences are also to be found among the races of men. Negroes are noted for their remarkable powers of resistance to yellow-fever, and in a lesser degree to malaria, yet they quickly sicken of and succumb to tuberculosis and small-pox.

If we take *identical species and races*, then *age*, the *state of nutrition*, and other circumstances are important factors. *Young* individuals are in general less resistant. Young pigeons can be infected with anthrax, whilst the older birds can only be infected after weakening them by prolonged fasting. The same holds true for anthrax in dogs; their power of resistance being reduced when water is withheld from them. By feeding exclusively on a bread diet, rats have been rendered more susceptible to anthrax than when kept on a meat diet; and similar results have been obtained by fatigue induced by making rats run in a revolving wheel.

Pasteur's experiments on fowls and pigeons are famous. The bird's normal temperature (42°C.) was lowered by immersion in cold water, and the power of resistance against anthrax was thus abolished. In the human subject, besides such factors as fatigue, cold, state of nutrition, etc., conditions of physical depression exert an important influence in lowering the power of resistance. Again the power of resistance which is commonly present may be suspended—as, for example, by injuries to certain organs and the like.

Thus we see that men and the lower animals alike have been endowed by nature with wonderful "powers of resistance" to the assaults of infective bacteria, though the intensity of that resistance varies in the different orders and species according to the nature of the attacking agent; and according to the state, depressed or otherwise, of the resisting organism.

Let us now go on to consider *what are the causes of this natural immunity*. What are our "*natural powers of resistance*" due to? How is it, for example, that the living organism is enabled to withstand the putrefactive bacteria, whether they be those of the intestinal tract or of the external surface of the body, which manifest their destructive power immediately after the death of the whole body, or of individual parts?

We must, in the first place, mention the *external protective appliances* which retard the penetration of infective agents into the body. Provided there be no breach of continuity, the *skin* is impervious to micro-organisms, under ordinary conditions. This protection is, however, insufficient, on inunction of the infective agent with mechanical pressure. But should micro-organisms, taking advantage of some wound or scratch, gain an

entrance through the skin, we have a second line of defence in the *lymphatic glands*, which take up and mechanically retain the infective agents, thus affording the organism time to bring into play its further protective powers.

Intact *mucous membranes* are also, for the most part, impervious. It has been shown that large quantities of virulent anthrax spores are required to infect guinea-pigs and mice by the intestinal canal; whereas very small quantities suffice to infect either, subcutaneously.

Again we must not forget other truly protective appliances of the body, such as the *acid reaction of the normal stomach contents*, the *bactericidal properties of the saliva*, of the *vaginal and urinary secretions*, and so on.

But it is evident that the *essential cause of natural resistance to bacteria* lies, not in these external protective appliances, but in the internal and somewhat complex conditions of the bodily organism, of which we have, at present, only an incomplete knowledge. That there is suitable pabulum in the tissues for the growth of bacteria, we can see for ourselves, as, e.g., in wounds, where the infective agent flourishes for a time, though afterwards multiplication ceases and recovery takes place.

Hence the problem presents itself, "What are the factors which effect this change?" By what means is the multiplication of bacteria inhibited, while there is manifestly suitable pabulum for them in the tissues? The change can only be induced by the direct action on the bacterium of the prophylactic appliances of the body, two of which are known, viz., (1) *phagocytes* and (2) *alexins*.

(1). *Phagocytosis*.

We owe to Metschnikoff the discovery of this very wonderful process. According to him the phagocytes are in part fixed and in part wandering cells which, by throwing out protoplasmic processes, are capable of enveloping, digesting, and thus removing infective agents which have penetrated into the body. The chief *wandering phagocytes* are the *leucocytes*, whereas many endothelial cells, the cells of the splenic pulp and of bone-marrow, sometimes also connective tissue cells, and even nerve and muscle cells act as *fixed phagocytes*. Ladies and gentlemen present will have observed, perhaps in the case of the malarial germs, the remarkably intelligent, systematic and persistent manner in which the leucocytes of the blood will attack foreign particles. I well remember the graphic way in which my old pathology lecturer, Professor Greenfield, described to us a pitched battle that he, in company with Dr. Manson, had watched through the microscope; how the leucocytes attacked again and again, and how, at one time, he thought them worsted in the fight, soon perceiving, however, that they had but retired to re-arrange their nuclei, and returning again to the attack completely swamped the enemy from the field.

Metschnikoff first observed this process in water-fleas affected by the fungus disease. He noticed that the fungus spores were devoured by the leucocytes of the flea, and a cure thereby effected. He afterwards detected a similar process in frogs affected with anthrax. Later on Metschnikoff proved that phagocytosis may be perceived in the course of *all infective processes*, and more especially if the animal be resistant and the process end in recovery. In *natural resistance to bacteria*, phagocytosis is, according to the same observer, developed to an exceptional degree, and is of such constant and regular occurrence that we may often foretell from the degree of phagocytosis whether or no the animal experimented on will gain the victory over the micro-organisms.

(2). *Alexins*.

Although the observations of Metschnikoff are undoubtedly correct, we have to remember, however, that the fluids of the animal body contain not only phagocytes, but also bactericidal substances in a soluble form, which are termed *alexins*, also concerned with the destruction of bacteria.

Buchner found that completely cell-free blood plasma or serum has a bactericidal action, and he also proved that the protective substances contained in the serum (*alexins*) are of proteid nature and very unstable. The bactericidal action of the alexins seems to depend upon the presence of mineral salts in the serum. Take away the mineral salts from the serum by dialysis, and you suspend the bactericidal action of the alexins, which is restored, however, by re-addition of the salts. The action of the salts is an indirect one; it is only when they have entered into loose combination with the proteid alexins that the functional power of the latter can be displayed, just as the functions of the cells and organs of the general body are dependent on their containing a normal amount of mineral salts.

Although it has been hitherto impossible to truly isolate the alexins because of their instability, yet they can be precipitated along with the other proteid substances of the serum, can be dried and again dissolved without losing their activity.

The alexins of different animal species have different degrees of activity; those of the human serum are very actively bactericidal.

The degree of bactericidal activity, however, is largely dependent on the nature of the bacterium employed and on the relative proportion of serum to the number of bacteria contained therein. A given quantity of serum can only destroy a certain number of bacteria, for the alexins themselves are destroyed or used up by contact with bacteria. Hence the increased danger to which the body is exposed when the infective agents are numerous. The action of alexins on bacteria appears to be a specific one upon the bacterial cell plasma.

We have, therefore, an explanation of our natural powers of resistance to bacteria in the action of *the alexins of the blood serum*; and, in contradistinction to this, we have the explanation of natural resistance brought about by *the phagocytic action of the leucocytes*. It would appear that both theories are correct, and that the real explanation of the problem lies, as it were, midway between the two, for, according to all recent investigation, *the alexins are mainly derived from the leucocytes*.

The *leucocytes*, therefore, as is claimed in the cellular theory, must be regarded as the chief cause of natural resistance to bacteria; not merely because they are phagocytes devouring and digesting bacteria, but also *because they produce alexins*. The precise relationship, however, between leucocytes and alexins is obscure.

Artificially produced exudations from dogs and rabbits, which are rich in leucocytes, are more markedly bactericidal than the blood and serum of the same animal.

The increase of bactericidal power does not depend on phagocytosis, for it is maintained after freezing and then thawing the exudation, a procedure which kills the leucocytes but does not destroy the alexins. It was proved in Metschnikoff's own laboratory that bactericidal substances are supplied to the serum by the leucocytes. He accordingly admits that alexins may be produced by leucocytes, but conceives that they only pass into the serum on *the death of the phagocytes*, such as occurs in abundance after the withdrawal of blood. He says there are no alexins in the normal tissues and the blood within the body, because living leucocytes, in his opinion, do not secrete any alexins. Others dispute this assertion. In either case, it would appear that at the commencement of every infective process, as soon as the normal conditions are altered by the presence of bacteria, we get, to a certain extent at any rate, death of the phagocytes, whereby alexins get into the locally exuded fluid. When once there they manifest their bactericidal action, and *the primary injury* to the vitality of the micro-organisms is due to the alexins. This injury is not detectable microscopically, but in consequence thereof, the secondary process, which *may* be seen under the microscope, i.e., the devouring of the bacteria by phagocytes, is rendered much easier. It is an interesting point too that should the phagocytes afterwards succumb to any cause, e.g., to one experimentally induced, the engulfed bacteria may then renew their activity, may multiply and show undiminished virulence.

Such, in roughly sketched review, so far as we at present understand them, are the powers, external and internal, wherewith we have been provided by nature to resist the lurking enemy around us.

If these then are our natural protective powers, it would be interesting to think for a moment how, in the treatment of disease or otherwise, these

powers might be enhanced. Can we help nature in this matter and *increase* our natural powers of resistance to bacteria? Yes, this may occur in two forms, either (1) *locally* in particular areas or organs; or (2) *generalised* throughout the whole organism.

(1). *Local* increase of resistive power to bacteria is most easily effected by the artificial increase of blood supply to the part in question. The increased supply of blood brings, not only increased nutriment to the part, but, and this is the point we have under consideration, it brings also an increased supply of leucocytes. The bearing of this in regard to disease is obvious. Increase your blood supply to a part then, and, in proportion to the leucocytes and alexins it contains, you get an important absorptive action on the diseased structures and on the causal agents. The experience gained by increasing the blood supply to diseased parts of the body, such as the limbs, entirely corroborates this view. The most important results in this respect have been obtained by Bier, who was the pioneer of the successful treatment of tuberculosis of joints and bones by means of chronic venous congestion.

We might here notice several methods of inducing an increased blood supply:—

(a) *Venous congestion of a limb* by means of elastic compression.—This method may be beneficial not only in tuberculosis, but also in gonorrhoeal infection of joints and in acute and chronic articular rheumatisms.

(b) *Arterial hypercæmia*—best induced by hot air; for articular rheumatisms and arthritis deformans.

(c) *Mixed hypercæmia*, induced by Bier's suction apparatus; for chronic articular rheumatisms.

(d) *Increased arterial flow* without evident external hypercæmia, caused by the permanent application of alcoholic bandages.

A note with regard to the latter might not be out of place here. Such bandages were first employed in cellulitis, lymphangitis, whitlows, boils, mastitis, etc., and with splendid results. In many cases an excellent recovery from tuberculosis affecting bones or joints may follow the permanent use of alcoholic bandages. This action cannot be due, as was supposed, to any direct disinfection by means of the alcohol, for alcohol cannot penetrate deeply into the tissues, and moreover, the presence in the tissues of any direct chemical disinfectant is well known to be favourable to bacteria which, because of their protective membranes, are always more resistant to antiseptics than are the tissue elements. Alcohol, however, when locally applied, has—because of its dehydrating action, which causes a cutaneous irritation—the direct power of dilating blood vessels, and especially the arteries. In limbs which are enveloped in alcoholic bandages, the effect is

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If these then are our natural protective powers, it would be interesting to think for a moment how, in the treatment of disease or otherwise, these

its surging armies of micrococci, we cannot afford to be unmindful of them. We have hard work to do in China, and we need to be in first rate health for it. Take all necessary precautions, such as your medical common sense will suggest, dietetic and hygiene. Get your leucocytes into first-class fighting form, ever ready to cope with an enterprising enemy. So shall we be helped towards happy and healthful lives and be physically fit for the great work that we are seeking to do in China.



PHRASES USED BY OUR PATIENTS TO EXPRESS THEIR SYMPTOMS.*

By C. J. DAVENPORT, F.R.C.S., Engl.

This subject suggested itself to me as being a useful one to most of us. I bring it forward, not because I pose in any way to be a Chinese scholar, but that we may be able to help one another to get at the real meaning of the every-day phrases used by our patients. To rightly understand what our patients feel, is assuredly an important step towards our right diagnosis and successful treatment.

Naturally my subject mostly relates to medicine. Surgical diseases are chiefly on the surface and can be seen. Organic disease and its effects has to be described.

One example will well illustrate the need for our carefully investigating the phrases used by our patients. I had long heard the phrase 肚子爬氣 and jumped at the conclusion that 爬 meant fear. Recently I have learnt that this 爬 means to creep and that the meaning of the phrase is that the patient feels flatulent distension, now in one place, now in another in his chest or abdomen.

I only deal with phrases which I have heard, and whose meaning seems to me somewhat obscure; and will class them relatively to the different organs.

Let us first take the lungs. What is the significance of the phrase 炭氣結胸, meaning phlegm, air, knotted or fastened or fixed in the chest? One naturally concludes that the theory is bronchial obstruction, caused by these two elements being in deadly embrace!

This gives rise to the expression 吐不出氣來, meaning inability to expel the air owing to blockage from within. Another phrase one bears is 提不起氣來, meaning inability to lift up, pump up the air, evidently expressive of muscular, or respiratory weakness or failure.

The expression 閉不過 means smothered, suffocated; the cause of obstruction being from outside. One meets its use in cases of high fever

* Read at a meeting of the C. C. M. A., Hankow.

seen in local increase of arterial pressure, proving that the action of the alcohol is distributed throughout the whole limb. This is the explanation of the beneficial change which occurs so rapidly in cellulitis, for example, after the application of alcoholic bandages.

The alcoholic bandage consists of eight layers of gauze bandage which has been dipped and wrung out in ninety-five per cent. alcohol and applied directly to the skin. Over this is placed a layer of cotton wool and then gutta-percha tissue. To ensure success it is important that the bandage should cover a large area; for example, in cellulitis of the hand, the whole forearm should also be bandaged.

(2). *General increase of natural resistance to bacteria* is effected by such agents as induce general hyper-leucocytosis; for if the blood contains an excess of leucocytes it possesses increased bactericidal power, unless the leucocytosis be a pathological one, as, for example, in leucocythæmia. Hyper-leucocytosis, and consequent increase in the preventive powers of the body, has been successfully brought about by the subcutaneous use of various preparations, of which the products obtained from yeasts have been most successful.

It would be tedious to try and enumerate the different substances that have been used with the object of producing hyperleucocytosis and increase of resistance. The injection of various apparently absolutely indifferent fluids (for example, normal saline solution,) into the peritoneal cavity of guinea-pigs, may be followed by a temporary increase of natural resistance. *Cinnamic acid* is an agent exciting general hyper-leucocytosis. Landerer has for several years successfully treated pulmonary tuberculosis in man by the use of intra-venous emulsions of *cinnamic acid*. The fine particles of *cinnamic acid* circulating in the blood are deposited in those parts of the body where there are morbid tissue changes, hence in the tissue around tubercular foci. The results of the chronic inflammation thus set up in these areas are dilatation of capillaries, œdema, and accumulation of leucocytes; at a later stage a thick wall of leucocytes is formed, there is subsequent formation of connective tissue, and lastly cicatrization.

Finally, we may note that a general increase of the natural powers of resistance to bacteria may undoubtedly be effected by *general dietetic and hygienic measures*, and the most convincing proof of this is afforded by the successful dietetic and hygienic treatment of pulmonary tuberculosis at the present day. In this instance nutriment suitable both in quality and quantity, bodily exercise, an abundance of pure air, and all strengthening measures are of great importance.

This paper may be deemed by some to be too detailed and technical—but at any rate it leads up to a practical conclusion—*look after your leucocytes*. In a country like China, with its trying climatic conditions and

This region in China, as in other lands, is the hypochondriacs "hunting ground."

After a dog bite, dyspnotic symptoms are attributed to small dogs gnawing at the stomach.

A heavy drinker gets a 酒龜, meaning wine tortoise. Cirrhosis of the liver, enlarged spleen with ascites, is put down to a 氣龜 or 水龜 or 血龜. Stagnant, dead blood, 淤塊, is said to settle in the chest or stomach and turn into a 血龜 or 血塊. The patient's general condition when suffering thus is often expressed by the phrase 黃皮刮瘦, meaning yellow skin and as lean as if all the flesh had been sliced off; such are the theories which account for affections of liver, spleen and stomach and provide ample scope for endless quackery.

Patients often say their children have 疳積病, denoting marasmus, malnutrition, and may be worms. The child often is extremely pot-bellied. In Chungking phthisis is called 疳病, a very good substitute for our term consumption.

The phrase used to express want of satisfaction, or the sense of vacuum, after food in cases of dyspepsia, is a curious one, viz., 飯不落肚, meaning the food does not reach the stomach.

Turning now to the heart one does not hear many more phrases than 心裏慌 or 心裏跳, meaning palpitation.

A heaving heart-beat is expressed by the phrase 心裏碰. A fluttering palpitation is expressed by the phrase 心裏吊倒直擺, meaning the heart feels hung up and continuously shaking, or moving from side to side.

Phrases used in regard to the alimentary canal are mostly clear. Constipation is attributed to 火, meaning exciting humors, fever, full habits. Hence the common phrase 肚子結住了火, meaning the state of pent up heat or humors in the abdomen. In this connection one often hears the term 沉脹 used; or a little expression, 大便作脹. It evidently means a sense of fullness, downward pressure, and withal constipation. It differs from 墜脹, which term may be used either in reference to micturition or defecation, e.g., 肚子往下墜. 沉脹, apparently means downward pressure, the impulse being from above.

脹墜 apparently meaning dragging pressure, the impulse being as it were from below. Both these terms are used in-connection with dysentery; the former rather expressing the straining, the latter the tenesmus. The common phrase here for dysentery is 刮紅白凍子. I am told it means scraping red and white jelly masses, or congealed masses.

Patients often say 肚子有陰陰疼 or 肚子有隱隱疼; whichever may be the right character, the meaning is clear, viz., slight stomach ache,

where the expression 閉住了, meaning state of suffocation, is used. It is attributed to chills, or draughts, striking the patient; hence the phrase 風寒拍住了. Such is their theory with regard to quickened or obstructed respiration caused by congestion of the mucuous membrane or imperfect oxidation in fever. One is often asked, especially in treating children, for medicine to 開竅, meaning the openings. The breath or food is said not to be able to pass the opening 不過竅. This again indicates congestion and dry mucous membrane; but it may also mean laryngeal obstruction, or dyspepsia. The phrase 氣不足, meaning air or breath not enough or unsatisfying, is very commonly used. It indicates to me loss of lung capacity, e.g., caused by pleural effusion or destruction of lung tissue. When there is added the character 中, 中氣不足, then the meaning is altered to indicate debility or loss of vital force.

Another phrase, 氣促得很, meaning breath greatly obstructed, describes the dyspnœa of asthma or that of phthisis. The ordinary wheezing of bronchitis is expressed by the term 喘氣, and panting after exertion is expressed by the phrase 氣吐不盈. The last phrase I might mention in regard to the lungs is one which appears to me rather to indicate muscular or general debility, 氣不穀伸, meaning breath not enough to expel. Evidently it points to loss of strength and may therefore have more to do with heart than with the lungs.

Passing on now to the region of the stomach we find many phrases to express indigestion, each evidently with a slight difference of meaning.

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|----------|--------------------------------|
| 1. 胸口板住了 | gastric region, hard or fixed. |
| 2. 胸口壓住了 | „ oppressed. |
| 3. 胸口隔住了 | „ blocked. |
| 4. 胸口結住了 | „ knotted or blocked. |

For these conditions of course we are asked for 開胃藥, a digestive tonic.

What exactly is meant by the term 膈食 or 膈滯 I am not quite clear. I think it either means food disagreeing, or want of appetite. Parents often say their children are suffering from 肚子有食. This probably means undigested food or some obstruction. I find a dose of *santonine* and *gregory* usually clears it up.

Difficulty in swallowing, e.g., in malignant disease of the œsophagus, is expressed by the phrase 喉嚨有哽. To express gastric uneasiness—a stirred up, disturbed, upset stomach two phrases are used, viz., 心裏脹 and 心裏作煩. This often indicates to me the need of *santonine*. I do not feel quite clear on the meaning of 心裡煩躁, whether it is to express a parched condition, or whether a hurried beating of the heart or embarrassed, troubled heart, e.g., in gastric or cardiac crisis, I do not know.

of 102.4. Lungs and heart normal, no diarrhoea or vomiting. On this night there was noticed a scarlatinoid rash over chest and back and knees, neither very bright nor very typical, but as far as it went, pointing to scarlet fever. The throat was red and evidently painful. The patient was strictly quarantined, and next morning the rash was brighter but had not spread. Temperature 102.1. Evening temperature 101.2. Pulse 145. On the 25th the rash was fainter and on the 26th there was but a mottling of the skin left. Throat normal again. On the 27th rash had disappeared. For several days the temperature ranged from 100 to 102, being higher in the evening than in the morning, except on the 27th, when a laxative was given and the diet changed from Mellin's food (with milk) to Nestle's food and chicken tea alternately. From this time the temperature ran lower, but the patient was weaker and paler. The character of the stools changed with the change of food to smoother and darker. On the morning of the 29th, the patient coughed up a small specimen of *ascaris lumbricoides*. A grain of *santonine* was given at 9 a.m., 2 p.m., and 7 p.m., and two grains of *calomel* at 8 p.m. Fifteen more worms were passed at 7 that evening and next morning twenty-four worms. A dose of *oil* and *rhubarb* was then given and twelve more worms were passed, apparently emptying the bowel, but not so, as by the end of a week seventy-nine were passed. At 8 a.m. that day (the 30th) the temperature was normal and remained so from then on; the baby taking a long deep sleep and making a rapid recovery. On microscopic examination of the stools a fair number of eggs of the parasite were found. In all there were eighty-nine specimens of the adult parasite passed within the month, varying from two and half inches to eight inches in length; male and female being about evenly divided as to numbers. The worms resemble, as far as I can tell, in all respects those specimens which I have brought with me from America, except that in the male I can find but one, instead of two chitinous spicules of the cloaca, but I do not feel convinced of this difference. It does not seem likely to prove a correct observation.

To go back. On the evening of the 27th, the parents of the child were desirous, for reasons of convenience, to move him to the isolation hospital, but this I refused to allow, as at no time did I feel sufficiently convinced of the presence of scarlet fever. I then asked Drs. Boone and Reid to meet me in consultation on this subject, and the verdict was to keep the child at home, but to observe strict quarantine. This was done till the first large batch of worms were passed, when quarantine was rightly broken.

The following points seem to be noteworthy in this case. It closely resembled scarlet fever up to the fourth day. It presented really none of the text-book symptoms of ascariasis, I mean those which are supposed to point distinctly to this affection, such as "restlessness, irritability, picking

Passing on to more general symptoms we find many to express debility. 血虧, meaning anæmia and debility, mostly used in reference to women and attributed to repeated losses at childbirth. 腎虧 means loss of vital force or energy, and as a rule put down to excessive venery. Here we have a phrase, 腎火不足, meaning insufficiency of force and fire—strength and vitality. A common phrase used to express lack of recuperative power is 打得不精神.

Some express their loss of nerve force by saying 人像掉了魂, others express their weakness in the phrase 走路像掉了氣. Giddiness and dizziness are expressed by 頭昏眼花 or 混裏混沌 or 昏昏沉沉 or 心裏迷住了, all meaning confusion and stupification. Loss of will power, or loss of memory, is expressed by the phrase 心裏不作主. Severe aching of the joints may be graphically expressed thus 骨頭像脫節一樣. General aching and weakness is 四肢痠軟. Pains moving about the body call forth the phrase 遍身走得疼 or 氣轉得疼.

The terms 氣血不過節 or 血脈不過節 or 上氣接不得下氣 中氣不足 all point to circulatory obstruction from one cause or another—the latter meaning the upper and lower circulations cannot meet and the central supply is insufficient—probably meaning congestion caused by respiratory obstruction. A useful phrase in the diagnosis of rheumatic affections is 骨節走天色.

The above are a few phrases culled from every-day work. Doubtless many more can be added, but I trust the few herein mentioned may help us to get nearer the truth in relation to our suffering patients, and hence fit us the better to deal with their needs.



A PECULIAR CASE OF ASCARIS LUMBRICOIDES.

By W. H. JEFFERYS, A. M., M.D.

J. S., aged eighteen months, American, having a previous history of difficult dentition and several attacks of intestinal indigestion, also an attack of acute bronchitis two weeks previously, from which he had entirely recovered and convalesced, was under my notice from the beginning of the following attack. For a week the stools were regular in time (one a day) and amount, but clay-colored, pasty, and unformed. The diet at this time was well chosen and normal for the age, with a basis of Mellin's food. Child bright, rosy, and sleeping perfectly. On the afternoon of March 23rd there was a distinct chill (not a rigor), which lasted for about twenty minutes. That night he slept restlessly, and in the morning was flushed and had a temperature

Finally let me call particular attention to the enormous number of parasites and the tender age of the child. The very age of the child is enough to have thrown one off the track in making the diagnosis. There is no proper library in Shanghai so that I can quote no interesting statistics, nor can I speak with any certainty, but this combination of youth and numbers must be extremely unusual, to say the least. The mass of worms packed a nine-ounce bottle completely full, and by this one may judge what a space they must have occupied in the bowel of a baby of eighteen months.

SOMETHING NEW UNDER THE SUN.

By J. B. FEARN, M.D.

A man presented himself at the regular clinic one morning several weeks ago for some trouble of the penis. After a hurried examination he was told to stop in the hospital, as an operation would be necessary. My thought at the time being that it was only an ordinary case of phimosis—since childhood—with adhesions. Since the case could only be relieved by an operation he was turned over to the Chinese secretary to be entered on the hospital books and made ready for the operation.

The next morning upon closer examination there seemed to be some hard growth within the elongated prepuce. When a probe was introduced into the preputial opening—which was very small—the sensation of necrosed bone was transmitted. The grove director was finally introduced and the prepuce divided. With small dressing forceps a piece of stone—about the size of a beech-nut—was extracted. This was followed by fourteen more such stones until we had a Japanese match box full. The weight of these stones, when dry, was gr. 190. They fitted one into the other most perfectly, as though they had been “made to order.”

The man gave a history of ordinary phimosis since childhood. He was the father of four children, but since this accumulation within the prepuce had become so extensive his family had ceased to increase.

He carried about with him a sharp silver probe, which he used to separate the stones so as to allow the urine to flow more readily. With this aid only was micturation accomplished and that very slowly.

Circumcision was performed and the man made an uneventful recovery. The foreskin was a bit indurated from constant contact with the hard stones as was also the glans penis. This all disappeared soon after the operation.

The patient showed no signs or symptoms of stone in the bladder.

THE MICROSCOPE AS AN AID TO DIAGNOSIS.*

By O. T. LOGAN, M.D., Chang-teh, Hunan.

Shortly before I came to China I was told by a medical missionary that, owing to the prevalence of the lumbricoid worm, it was the practice of many missionaries to take *santonin* monthly. Acting upon his advice I tried to do my duty, but the result was that I made myself one of the most miserable of beings for many hours, during which time the world looked literally and figuratively of an icteroid hue, without, however, increasing the mortality of the interesting lumbricoid. This was in the former days of our mission. Now we insist upon seeing traces of game at least, before we fire at *ascaris* with our therapeutic gun, except in dispensary practice where this is not practicable.

After I arrived in China it was said in my hearing that the only way to be sure certain abdominal tumors were not composed of worms, was to give *santonin* in five grain doses every day for four or five days. In our premicroscopic days I was quite willing to agree with both the gentlemen quoted. Now I am not and I dare say that these progressive workers have undergone the change of mind as myself, especially if they have had a few *santonin* experiences. Manifestly it is bad practice to give a drug on suspicion when positive or negative proof is so easy at hand by means of the microscope.

I recall a case where I believe a valuable life was sacrificed, which our present knowledge of microscopy would have prevented. The patient was taken with a continued fever, and according to the practice of those days, was given sixty to eighty grains of *quinine* daily for weeks. In the light of the present, the man had typhoid, from which he would have had a splendid chance to recover had he not been handicapped by protoplasmic poisoning by *quinine*. This was in 1898, and it was "good practice" then. Now in the writer's opinion any physician, whose Board of missions could afford to furnish him a microscope, who treats a case of continued fever without positive evidence of malaria, with such doses of *quinine*, is culpable in the extreme.

Coming to the subject proper I will first consider the diagnosis of

INTESTINAL PARASITES.

Of the numerous intestinal parasites only four are of especial interest to us, i.e., the *ascaris lumbricoides*, the *ankylostomum duodenale*, the *oxyuris vermicularis*, and the *tricocephalus dispar*.

* This paper was read before the C. C. M. M. A. at their meeting in Kuling, August 18-21. Published by request.

The lumbricoid is so common that many natives regard its existence within them as much a matter of fact as their "queue" without, nevertheless this worm may cause a great deal of trouble as we all know. The worm seldom shows us its corporeal presence, but its solicitude for progeny makes its detection easy with the microscope. To find the ova all that is necessary is to take a portion of the fecal matter about the size of a hemp seed and press it between cover glass and slide. The specimen selected should be free from vegetable fibre and of such consistency as will make its spreading into a thin layer an easy matter. If too dry, water must be mixed with it. Recognition is usually easy with a two-thirds objective, but a higher power should be used in case of doubt. In a recent examination of the feces of our two children, several ova were found, with a two-thirds objective, in every field in the case of the daughter, who afterward passed four worms, while the son's specimen, with but one worm to his credit, showed a dozen eggs under each cover glass. During the examination of the latter specimen I was shocked to find what appeared to be the ova of the ankylostomum. The eggs in question were of light grey color, without the rough albuminous envelope characteristic of the lumbricoid ova; moreover the shell looked delicate and transparent. The granular yolk was not typically segmented, but this does not always occur in the case of the ankylostomum, especially after the eggs have been passed some hours. It was not pleasant to think of giving our two-year old child *thymol* (having no guide as to the proper dose for one of his age) so I moistened the specimen and laid it aside in a covered staining dish, knowing that within twenty-four hours or less the embryo would be moving within the shell if we were dealing with the ankylostomum. To my great relief there was no such movement, and furthermore I found no ova of any description after a single lumbricoid was expelled, so that the evidence was conclusive against ankylostomiasis. I mention this case to show how careful one must sometimes be to keep from arriving at a false conclusion.

THE ANKYLOSTOMUM DUODENALE.

I have met with four cases of ankylostomiasis; the diagnosis being based upon microscopic findings as well as clinical symptoms. Two of these were successfully treated, one refused treatment and one was treated with doses of *thymol*, which were too small. The eggs of this worm are somewhat smaller than those of the preceding parasite and are more uniformly elliptical. The color is light grey and the shell transparent and delicate. In thick specimens these ova are almost sure to be overlooked, being obscured by the bile stained fecal elements. The shell is more or less separated from the yolk, which is usually segmented; the segments resembling round epithelial cells with their granular substances and nuclei. As noted above the embryo

matures very rapidly and escapes from the egg. It is said that under favorable conditions a few hours is sufficient for this to take place. If the specimen is old*, the more liquid part should be examined for the live worm, as my observation shows that they take the line of least resistance when they hatch and are to be found chiefly in the thinner part of the specimen. Under a cover glass they are to be found around the edges, apparently making frantic efforts to escape. Even in old specimens some unhatched eggs are sure to remain, which represent, I believe, the male element chiefly, as I have not observed a single male in the many specimens of the two cases that have been incubated in our laboratory. The worms, when expelled, are hard to find in the stool. The writer uses a sieve to facilitate searching.

THE OXYURIS VERMICULARIS.

The eggs of this parasite are said to resemble the ankylostomum†, but they are not found in the stool. The worm itself, however, is often passed, and may also be seen inside the anus. The microscope is of aid in its recognition.

THE TRICOCEPHALUS DISPAR.

Very frequently will this worm's egg be found in the stool. It is very regular in outline and like the egg of the lumbricoid of a yellowish brown color. At either end will be found a protuberance. Its transverse diameter is about half as great as its length. Many of our text books, and notably Manson, give detailed descriptions of the eggs of these and other parasites, and any average observer will be able by means of these books and his microscope to become familiar with the different ova. The writer has had no other help.

BLOOD EXAMINATION.

When we enter this field most of us feel like we are in a wilderness. The science is such a new one and is growing so fast that it is hard for the busy missionary doctor to keep even in sight of the advance guard; still we must follow on and catch up what we can, so that we may give our cause the benefit of the patient toil of those who are blazing the path in this direction. I shall mention only that which in my opinion is of practical interest, omitting that which is not well settled or which is of scientific import only.

You will no doubt pardon a little digression here which, strictly speaking, may not be in place in this paper. The thought is another's, and is so good that I must pass it on. Some years ago I saw a paper on the subject

* The writer exhibited a specimen two months' old which had been kept moist by addition of water. The embryos were still alive. Unhatched eggs were also present in large number, but the yolks had lost their characteristic appearance.

† In the discussion following, Drs. Hodge and Davenport said they had seen these ova in fecal matter more than once.

of the blood that was delivered before the Y. M. C. A. of a medical college in Chicago. The author of this paper—I have forgotten his name—quoted Genesis iv. 10, "The voice of thy brother's blood crieth unto me from the ground." His comment was that the leucocytes seem to possess intelligence and that the Scripture could be taken literally without doing violence to our present knowledge of the blood. It is not straining our credulity to believe that each of these blood cells has a voice that can be heard by the maker who so wonderfully formed them. Thus the microscope may be said to have made the Scripture appear more reasonable to a certain class of people who would test this as they would any other book.

THE MALARIAL ORGANISMS.

It was my conviction before the advent of the microscope in our mission that estivo-autumnal malaria was very common in Central China, but after repeated examinations of the blood in cases of continued fever, I have failed to find a single case in Chang-teh, so that now I am doubtful of its existence as an endemic disease in our part of the empire. My conclusions, however, are not yet final.* I consider it a duty we owe to the missionary cause and to the medical world to subject the blood of cases of continued fever to examination; first, because it will enable us to treat our cases intelligently; and secondly, that we may know the geographical distribution of estivo-autumnal fever, which is so easily confused with typhoid. In many cases the only way to differentiate the two conditions is with the microscope.

There is nothing easier, given a good well spread specimen of blood, than a microscopic diagnosis of simple tertian or quartan malaria, provided *quinine* has not been given and provided also that several hours have elapsed since the chill. The recognition of the estivo-autumnal plasmodium is more difficult, being easily overlooked in its young form, and on the other hand, it is easy to mistake a vacuolated corpuscle or a corpuscle which has a blood plague superimposed for a young parasite. After a few days the beautiful crescent form develops and then diagnosis is very easy. The question of the coexistence of typhoid and malaria naturally presents itself here. Osler states that in 685 cases of typhoid coming from malarious regions, there was no case in which malaria was a complication. He insists that the term typho-malarial fever has no place in medical literature; its only use being to falsify death returns. Ewing, studying the blood of soldiers who had just returned from Cuba, where both of the above diseases were common, concludes that in cases of typhoid, the malarial organism, if present, disappears from the peripheral blood early and that its presence in no appreciable way affects

* Several of the physicians present have seen cases; the diagnosis being confirmed by the microscope, but all admit that the disease is not common.

the temperature chart, nor the course of the disease. During convalescence, however, the plasmodium may again become active and cause a true malaria.

COUNTING THE BLOOD CELLS.

This can be done, after some practice, by anybody who will carefully look after little details, provided of course that he has the necessary apparatus. A count of the white cells is of value in suspected hidden inflammation, and generally speaking, indicates the degree of inflammation. For instance, catarrhal appendicitis gives not over 15,000 leucocytes to the c. m. m., while the more inflammatory type shows a higher count. A blood count is of importance in differentiating typhoid from cases of hidden inflammation, as typhoid uncomplicated causes no increase in the leucocytes. A case of ours illustrates the above statement. A stone had been removed from the urethra and an abscess followed which caused retention, so that suprapubic drainage had to be established. After the wounds were well on their way to heal and the function of the urethra reestablished, the patient developed a temperature which kept near 103°; search for the plasmodium of malaria was negative, and the blood count, after repeated trials, was normal, so that a diagnosis of typhoid was made very early by exclusion, and further developments proved the disease to be such.

Cabot gives the following list of affections which suggest pus formation, but which do not raise the leucocyte count: the various colics, intestinal, hepatic, uterine, and renal, typhoid fever, floating kidney, fecal impaction or simple constipation, ovarian neuralgia, and an attack of the grippe or malaria occurring during convalescence from a surgical operation. Occasionally, this author states, leucocytosis is absent even when pus is present. This means that the pus is perfectly walled off or that the abscess is sterile, the bacteria having died. In very severe cases of infection, when the system is so overpowered that the leucocyte warriors have to make an unconditional surrender, there is no leucocytosis.

In the differential diagnosis between hemotocele and pus tube, a blood count is said to be of great assistance.

A count of the red cells is indicated in cases of anemia to show the amount of impoverishment and to add a unit to help in diagnosis. Generally speaking in chlorosis the count seldom falls below 3,000,000, while in pernicious anemia, Ewing states that in an average case, well established, the red cells vary slightly above or below a million.

Cabot points out the importance of using the hemacytometer in accident cases attended with shock, when the loss of blood is not known. He maintains that a count below 3,500,000 in a case not known to be anemic before the accident, indicates that the shock is from loss of blood and that transfusion should be considered, while if the blood count is normal, one

must look to some disturbance of the nervous system, such as concussion or compression for the cause. In concealed hemorrhages from extrauterine pregnancy, rupture of the liver or spleen, or the bursting of an aneurysm, this authority claims that a count of the red cells is of utmost importance in arriving at a diagnosis. He calls attention to the fact that in the above cases a few hours must elapse after the accident, so that fluid may be absorbed from the tissues, otherwise the blood count will not show the real state of the blood. The counting of unstained cells is insufficient. An enlarged spleen or liver may give a high count, but a differential count may be necessary to say whether the trouble is leukemia or abscess. If it is leukemia the myelocytes will be the prevailing type, if an abscess, polymorphnuclears will present an overwhelming majority.

There are many diseases that cause an enlargement of the glands. One of these is lymphatic leukemia. If this disease is present, a differential count will show that the lymphocytes comprise eighty or ninety per cent. of all the white cells. In pseudoleukemia with glandular enlargement, identical with lymphatic leukemia, the blood shows no marked leucocytosis unless the disease takes on the malignant nature, as Ewing thinks has been proven it may, of lymphosarcoma.

A study of the stained red cells is important in all cases of anæmia. Since beginning this paper a patient, extremely anemic, presented himself at our dispensary. As usual in such cases a blood smear was made, and when dry examined, after being stained with Jenner's stain, no marked changes could be found and the diagnosis leaned heavily toward ankylostomiasis. A purgative brought sufficient proof next morning in the shape of numerous ova of ankylostomum.

In chlorosis the red cells stain poorly in the center, owing to the deficiency of hemoglobin. This fact, together with a low hemoglobin index, is characteristic of this disease. Normoblasts are rarely present and megaloblasts practically never.

The picture in pernicious anemia is different. Together with a large number of megalocytes and poikilocytes are found normoblasts and megaloblasts; the latter outnumbering the former. Moreover the hemoglobin index is high in contradistinction to chlorosis and secondary anæmia. In advanced cases of carcinoma, the blood may present changes similar to those in pernicious anemia, but the hemoglobin index is said to be low.

Before leaving the subject of the blood I will say that it behooves us to make examinations of the blood in cases of lymphangitis and chyluria for filaria, of the blood clots in urine for bilharzia hematobium, of the blood from the lungs for the distoma pulmonale and its ova. Just now the trypanosoma is attracting attention; cases having been observed in Africa by

Manson and Maxwell in patients who had been bitten by rats and following sores caused by insect bites. A description of this body, which seems to get its name from its manner of progression, was given by Dr. Booth in the March issue of the *MEDICAL MISSIONARY JOURNAL*.

To attempt to go into all the diseases in which the microscope is of use in diagnosis would exhaust the writer's resources, even if it did not the patience of his hearers, but it may not be out of place to mention briefly some other conditions in which the microscope plays a diagnostic part. In suspected cases of actinomycosis, search should be made for the ray fungus. We have had a case of this disease occurring in the hand; in glanders Simon states that the bacilli are constantly in the blood and may be demonstrated by proper staining; in relapsing fever, dysentery, cholera, in typhoid if one is able to keep cultures growing for Widal's test, which it is said can be done at ordinary room temperature; in Bright's disease, gonorrhœa, gonorrhœal ophthalmia, tuberculosis, trichinosis—in the latter condition it has been found that there is almost always an eosinophilia of forty to eighty-three per cent; this, associated with muscular pains, is quite suggestive of this disease.

The subject of cellular pathology has not been touched and bacteriology only mentioned incidentally. To enter either of these fields would lengthen this paper unduly.

TECHNIQUE.

Thinking that possibly some of my colleagues may have had even less experience than myself, I am adding a few remarks on technique.

First, the eye pieces and objectives must be clean; when not in use the objectives should be kept in their proper cases and not attached to the nose piece. The eye pieces require frequent cleansing with Japanese lens paper or fine cotton cloth. It must be remembered that in taking an instrument from a cooler to a warmer place, even in the same room, a film of moisture forms on all the glass surfaces which will prevent good definition. I have blamed my technique and suspected our instrument more than once because I did not remember this simple point. In blood work absolute cleanliness is the price of success. Slides and cover glasses should be washed with soap and water, rinsed and stored in alcohol. In polishing, only cloth that is grease free should be used and a sufficient number of layers should be used to prevent the oil always present on the fingers from getting through the meshes into the glass.

In spreading blood for staining I have found Ewing's method the simplest and best. The end of a slide which has been smoothly ground is cleansed, and upon this is caught a rather large drop of blood. The end of this slide is then placed upon the surface of another clean slide lying

flat, and when the blood has spread the first slide is inclined at an angle of forty-five degrees and drawn toward the opposite end of the flat slide from which it started. The amount of pressure regulates the thickness of the smear. For blood staining I use Jenner's stain*, which fixes and stains in three to five minutes. It has the advantage over Ehrlich's triacid mixture, in that it requires no fixation, and it stains the malarial organism. For the examination for the malarial organism nothing equals fresh blood spread between cover glass and slide without pressure.

For blood counting I have used the Thoma-Zeiss instrument. In this work a mechanical stage is almost a necessity.

In conclusion I will say that I believe when we consider what the microscope has done for humanity and the spread of the gospel, we should become more familiar with it. Years ago when the Panama railway was built, it was said that every cross tie represented a man's life, so great was the mortality. Yellow fever, malaria, and dysentery no doubt did most of the deadly work. Now, thanks to the findings of the microscope, there is no reason why there should be a great mortality in building of that greater thoroughfare—the canal. That the missionary can safely go into the most malarious parts of the world, armed only with a Bible and a mosquito net, is due to the discovery of the malarial parasite and its cycle in the anopheles. That the late Major Reed and his associates could, within a few years, working against awful odds, banish yellow fever from Havana and that it is impossible for that disease ever to get a foothold in any civilized country, is due to the fact that the discovery of the malarial plasmodium in the anopheles led investigators to suspect the whole mosquito tribe of conveying yellow fever and the eventual fastening of the blame upon the beautiful silver spangled stigmoma—the fairest of the whole family—whose sharp thrusts have caused more deaths than the poisoned arrows of savages or the daggers of villains, causing periodical panics and stagnation of commerce in the southern states and effectually hindering the carrying of the gospel and civilization to many parts of the western hemisphere. When I consider the above, I feel like taking off my hat to one of the greatest benefactors—mute though it be—of the human race, and one of the mightiest aids, because of its discoveries and possibilities in the evangelization of the world.

In the preparation of this article I have freely consulted and used facts from Ewing's "Clinical Pathology of the Blood," Simon's "Clinical Diagnosis," Masser's "Medical Diagnosis," Osler's "Practice of Medicine," Manson's "Tropical Diseases" and Warren and Gould's "International Text Book of Surgery," Section on Blood Examination by Cabot.

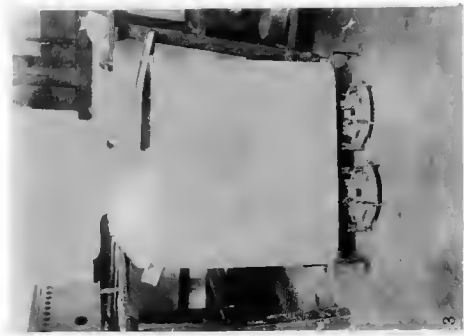
* This stain can be bought in dry or liquid form of any first class dealer of microscopic supplies in the U. S. If the powder is used it must be dissolved in chemically pure wood alcohol. My stain came from Baueh and Lamb Opt. Co., Rochester, N. Y.



2. FOOT RUSTS.



1. DRESSING TABLE FOR DISPENSARY.



3. COTTON BOILER.

A LABOR CASE IN SHANTUNG.

By FRANCIS F. TUCKER, M.D.

I was called up a few nights ago to attend a labor case in a village some nine *li* (three miles) away; the native dispensary assistant sending word that he did not feel that he could attend to the case alone. Mrs. Tucker also prepared to go, but as one small donkey was all the transportation at hand, I went alone. The woman had been in labor several days. A hand had appeared, and, after all native aid had been unavailing, the child's ARM WAS HACKED OFF. My assistant was called several hours later, and I arrived on the scene shortly thereafter. The patient lay on a bed of sun dried mud bricks, and her every movement raised a cloud of dust. Under the circumstances there seemed to be but one likely outcome of the case, but, for the sake of humanity, we anæsthetized the patient and delivered the child after an hour's hard work; the placenta coming away with the child. The legs of the child were extended "splintered" over its head in utero. In a hundred cases in Chicago I had met with this circumstance but once. The husband was very grateful, proclaiming that there was no one with so much "heart" in the whole district. As we cannot watch such outside cases, because of the many demands of the hospital, favorable reports had to be relied upon, but it was not surprising that she died thirteen days after delivery. Pneumonia and embolism contributed to the result.

DISPENSARY FURNITURE.

By W. H. JEFFERYS, A.M., M.D.

1. Most of us think we have the best thing till we go around a bit and "look see." This latter I have done and still think I have the most convenient dispensary table in Shanghai. It is modeled on a larger table in the outpatient department of the Pennsylvania Hospital, Philadelphia. This one of mine (see photo.) is made of hard wood and is Ningpo varnished. It should be absolutely without ornamentation and all corners should be rounded. It is three-storied, each floor narrower than that below it, upper floor for large irrigating bottles of solutions, not shown in the picture. Middle floor for drugs, ointments, and so forth, in daily use for surgical patients. Lower floor for dressings and instruments. There are four large drawers, divided into convenient compartments, for plain cotton, bandages, waxed paper, etc. On the far side is a shelf that can be raised for use or lowered for space. This shelf

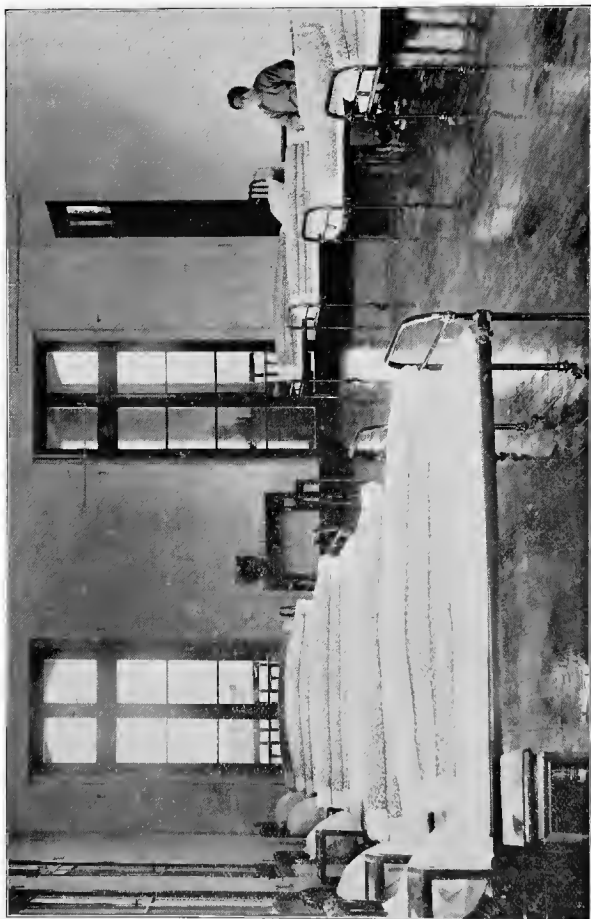
is for the instrument trays and sterilizer, which is practically an enamel fish-boiler on a gas or oil stove and is kept boiling during the clinic time, and every instrument used (except the knives) is thrown into the boiling water every time it is used and left there till wanted, when it is fished out with convenient forceps. (I believe this saves a lot of unnecessary infection of wounds.) The table is long and narrow, so that one can stretch through it with ease. It is intended to stand in the center of the dressing room and in the axis of the same with benches arranged around the room. In a small room the table might stand with one end to the wall. Cost in Shanghai \$18.00 Mexican.

2. One's back is saved much aching by the simple devise of a high narrow stool (several of them) used as a rest for all feet and legs treated in the out-patient department. It saves the doctor from stooping for examination, the dresser from stooping to dress, and the patient the strain of holding up his often very painful leg or foot. (See photo.) This is also hard-wood and Ningpo. Perfectly smooth and rounded in its short axis on top. Once tried, always used. Cost under a dollar each. These should be ranged in front of a special bench or two, and all leg cases can be pointed thither and soon acquire the habit.

3. We use a zinc boiler for sterilizing and rendering absorbent almost all the cotton used in the out-patient department. By using Canton flannel prepared in this way, and native cotton ditto, we save nearly one-half the cost of these expensive goods and lose only *in looks*, not I think *in results*. In the operating room and wards we use only imported dressings. The boiler is ugly but useful. It stands on a crossed-iron stand and is heated by two gas stoves or oil stoves. (The process is similar to that devised by Dr. Borland of Hankow, but after the boiling the cotton should be rinsed several times in clear sterile water.) Cost of boiler and stand, about \$5.00.

I humbly submit these three devices for adoption "with improvements" by labor-saving hand-workers.





WINSLOW WARD. ST. ELIZABETH'S HOSPITAL.

ST. ELIZABETH'S HOSPITAL, SHANGHAI.

By JULIET N. STEVENS, M.D.

Although we suffered, and still suffer, from the woful ignorance of the builders of this eastern country in regard to hospital architecture and the details of hospital finishing, we have two buildings of which we are not ashamed.

It was hard work from the first, for I was asked to give an opinion on plans for a hospital in China within a week of my arrival in the country. After two years' residence I know how wise I was to realize that there must be needs and reasons for differences in detail from our home hospitals. My light was not brilliant at that early stage, but some changes were made that I am not at all inclined to regret.

For instance, a second stairway; that I suggested when I found the plan had but one; the bathrooms introduced into the plan and a few other little odds and ends in the way of closet room and so on.

The two buildings are of grey brick with trimmings of red brick. In appearance they are of the stereotyped Shanghsai style, from which there seems to be no getting away.

The usual plan of reducing veranda space to make bathroom has not been followed, and one of the great beauties of the hospital is the glorious veranda. It is twelve feet wide and extends the full south side of the main building, forty feet.

It is difficult to persuade the women that the veranda is a nice place for them to sit. The children enjoy it greatly, and the ones that are well enough are out all day long.

Later a part, at least, of the veranda will be enclosed for the cold weather.

There are three wards, all in the main building. Although putting so much under one roof made it impossible to have windows on opposite sides, two of the wards have windows on two sides, south and west, and the largest ward has windows on three sides—south, north, and east.

The larger ward upstairs is called "Winslow Ward," named in memory of Mrs. Winslow who, before her death, succeeded in interesting friends in the medical work for women in Shanghai, so that an impetus was given and the \$10,000 asked for soon subscribed.

Winslow ward is a fine room; the length of the main building, sixty feet, and twenty feet in width. It is beautifully light and airy, as are all the wards.

Across the hall from "Winslow" is the surgical ward, and next to that the operating and sterilizing rooms to the north. The operating room has a large window, eight feet in length by some ten broad, and is therefore well lighted.

On the first floor is another ward, used for medical cases; also a limited number of private rooms. Downstairs, too, is the department for maternity work. The latter consists of three rooms that answer very well for the present. At the foot of the main staircase is the hospital chapel.

The central staircase is, in every way, admirable. The builder acquitted himself well in that particular. The treads are low, the staircase wide, and the one turning of such shape that a stretcher is easily carried up.

There is an office near the main entrance, where records are kept and hospital business transacted.

In addition to the main rooms there are several useful closets and a dumb-waiter. Of this dumb-waiter the hospital assistants were slow to see the use, but it is of considerable value in sending food to the upper wards.

A covered way from one of the rear doors, for there are numerous outside doors, leads to the dispensary building. On the lower floor of this building is a fine waiting room for the clinic patients. Off the waiting room are two consultation rooms, and opening from the main consultation room, a drug room.

The present management of receiving and dismissing patients works admirably.

The patient is received in the larger consultation room. If the case requires, she is taken to the inner room for further examination. The dressing is applied and the prescription written, and the patient ushered into a passage-way beside the drug room, and off the main consultation room. This passage way is wide enough to accommodate a bench and has an outer door. On one side is a window into the drug room, through which the patient hands her prescription.

When she receives her bottle or ointment jar there is but one thing she can do—walk out the outer door, as the door back into the consultation room cannot be opened from the outer side.

This is the only possible way to handle clinic patients comfortably. There is absolutely nothing original in this idea. It is in use in at least one other hospital in Shanghai, and it is through a suggestion of the head physician of that hospital that the same plan is followed here.

The drug room is well-lighted, well-arranged and well-equipped. It has two outside windows, ample locks and drawer room as well as shelving, and a small gas stove and lead-lined sink, with cold water.

On the second floor of the dispensary building are rooms for nurses and assistants, comprising: bed-rooms, a bath-room, and dining-room. In the rear of the dispensary building, but not really of it, are the kitchen and laundry.

The two main buildings have gas and cold water piped throughout, with standing washstands or lead-lined sinks in various useful places. Hot water is obtained from the fine "lau-hoo," a native hot water apparatus in the laundry.

There are also two small buildings of one floor each, containing rooms used as store-room and servants' sleeping quarters. These are quite detached from the two chief buildings.

A place for satisfactory isolation of infectious or suspicious cases seems not to have been thought of in the original plan, but that will be the next thing added, and before a great while.

The hospital is well located for work, just off Avenue Road, near Park Road, in the Sinza district, where there is a very large native population on all sides but one.

From the opening of the hospital, March 17th, 1903, to September 1st, 2,432 clinic patients were cared for, 1,113 of whom were new patients; 109 patients were admitted to the house, 146 visits made to patients outside.

The work is growing rapidly, and as St. Elizabeth's is now the hospital of the American Church Mission in Shanghai for women and children, there is no limit to the work. The women who have been going for so many years to the clinics of the women's department of St. Luke's Hospital, Hongkew, have been somewhat slow in learning that they cannot now be treated there, as that is the men's hospital, but they are learning the fact.

There is still unoccupied space in the hospital compound for other buildings as they may be needed.

Medical and Surgical Progress.

Medical.

Under the charge of Robert T. Booth, M.B., B. Ch. R. U. I.

ABSTRACT OF PAPER ON ACNE AND ROSACEA, BY THURSTON GILMAN LUSK, M.D.

Post Graduate, June, 1903.

Acne is a disease of the subcutaneous glands, and is the most common of all skin disorders, eczema not excepted. The majority of those slightly affected never apply for treatment, and for that reason it holds second place in statistics.

The lesions of acne consist of comedones, papules, pustules, and tubercular or deep-seated indurated abscesses. When consisting mainly of small, firm, red elevations, the condition is known as *popular acne*; when superficial pus collections predominate, *pustular acne*, or *acne vulgaris*; while deeply situated hard and painful nodules, with or without central abscesses, constitute *acne indurata*. All of the above forms may co-exist.

The lesions of rosacea consist of erythema, inflammatory papules and pustules, with dilated, superficial blood-vessels, and in chronic cases, hypertrophied connective tissue. The papules and pustules are not situated around the comedo, as in acne, and the inflammation is more diffuse.

The distribution of acne is principally on the forehead, nose, cheeks, chin and neck, but the shoulders, chest and back are also frequently involved, and may be the seat of the disease when and after the face is free. Rosacea is limited to the face; the middle third, embracing the nose and cheeks being the most frequent location.

Acne begins at the age of puberty and diminishes after the twenty-fifth year, while rosacea is a disease of middle life, beginning usually after the thirtieth year.

Indigestion, either gastric or intestinal, is always present to a greater or less extent, as is also constipation.

Menstrual irregularities, especially dysmenorrhea, are also contributing factors, and lesions are always more abundant during the menstrual flow, even though the function be normal.

It is probable that the causes enumerated act only so far as to produce an inflammatory condition in and around the sebaceous glands and follicles, and thus prepare the soil for the invasion of the staphylococcus epidermidis albus, which is always present on the skin.

The streptococcus also joins the latter when the soil is less resistant and accounts for the deep-seated abscesses seen in indurated acne.

Strenuous efforts have been made recently to isolate a special bacillus, and Gilchrist, of Baltimore, has only this month succeeded in finding definite bacilli, which were present in all smears taken from 240 typical acne lesions, from 86 patients, and which he named bacillus acnes.

However, in my opinion, this special bacillus is possibly our old friend, the staphylococcus epidermis albus, in a new dress.

The predisposing and exciting causes of rosacea are the same as in acne, except the age, and in addition to the above, special stress should be laid upon the abuse of alcoholic or malt liquors and tea used excessively.

The first consideration in the treatment of acne and rosacea is the diet. It should consist of wholesome food, properly prepared and served at regular intervals. The food should be thoroughly masticated and eaten slowly; a rest of half an hour should follow each meal.

Inquiry should be made into the personal and general hygiene of every patient, the same as would be in order when dealing with any condition where the system is below par. Proper ventilation of sleeping, living and working rooms, together with sufficient out-door exercise, should be insisted upon. A cold sponge bath every morning, followed by vigorous friction from rough towel, will do much toward improving a sluggish circulation. As a rule, cold or tepid water with pure castile soap used once or twice daily on the face is far better than an abundance of soap, hot water, and violent scrubbing, which renders the condition worse in all cases, except where comedones constitute the only lesions. There is no internal treatment for acne, *per se*, but whatever abnormal condition exists, should be corrected as if no skin lesion was present.

Local Treatment.—Thick oily skins, studded with blackheads, and small papules, should receive vigorous treatment; tincture of green soap with friction and forcible pinching of the skin between the fingers, followed by the application of an ointment, consisting of from one to two drams of *borax* to the ounce of cold cream, will usually meet all conditions in this stage. It may be necessary to shell off the skin by means of a twenty to thirty per cent. ointment of *resorcin*. A most useful procedure in all such cases is scraping the face with a sharp-ringed curette. This removes the blackheads or renders their removal easy by means of proper instruments; it also stimulates the cutaneous circulation and promotes absorption, even of deep-seated lesions.

The process of curetting should always be followed by the application of some mild antiseptic to insure against infection of papules and blackheads, whose tops have been scraped away. Many patients will not submit to curetting, and I usually reserve this procedure for obstinate cases of the type above given. The second indica-

tion for antiseptic, stimulating, peeling, astringent applications is met in every particular by our compound white lotion, known as *Lotio alba comp*; the formula and directions for making which are as follows:—

R Zinc sulphate	...	...	dr. i.
Potass. sulphuret	...	...	„ i.
Sulphur precip.	...	...	„ i.
Alcohol	...	...	qs.
Aq. rosæ	...	...	ad oz. iv

The *zinc* and *pot.* are each to be dissolved in half the quantity of *rose water* and the *potash* solution added to *zinc* solution slowly, with constant stirring; sufficient alcohol is added to the *sulphur* to make a thin paste and incorporated with solution resulting from above. The bottle should be well shaken and the lotion be thoroughly sopped on the face twice daily. When the stimulation and peeling become too severe, it should be stopped for a while and cold cream or other emolient applied.

Third indication, evacuation of deep-seated abscesses and powerful stimulation of deeply situated nodules.—Incise with small bistoury or finger knife, express contents, apply pure *carbolic* on tooth-pick and follow by sopping on compound white lotion, double strength. For the deeply situated nodules nothing excels the following:—

R. Potass. carbonat.
Sulphur precip.
M. Glycerin, equal parts,

This is very powerful and should be applied only over nodules and never used on delicate skins. Its use will nearly always render incision unnecessary.

It is well to explain to patients that scars, more or less marked, always follow deep-seated abscesses and that the scars result from pustulation and not from incision or other treatment.

(A long discussion followed the reading of this paper. We quote from Dr. Sheffield the following: "I never use the curette or watch-key or any other instrument to remove the

blackheads. I rely mainly upon internal treatment and hot baths, which hasten elimination, and I think in this way we can get rid of the eruption, and the blackheads without much difficulty, provided it is persisted in.")

CURRENTS OF HIGH FREQUENCY IN
DERMATOLOGY.

Regner (*Progrès Med.*, May 17th, 1902) gives a summary of the employment of currents of high frequency in dermatology. The peculiar property of these currents is that, without producing any appreciable effect of contraction or sensation in muscles and nerves, they modify sensibility, reducing it to anesthesia. They also modify circulation in a manner which has been described as circulatory drainage, which is beneficial in local inflammations with capillary and venous stasis and in cases of

impaired nutrition. Pruritus, often rebellious to other forms of treatment is frequently improved by these currents. Psoriasis gives variable results. In eczema, especially weeping eczema, the effects are more constant, the itching sometimes disappearing after the first application. Alopecia, zona, molluscum, contagiosum, acne, and acne rosacea, impetigo, and morphea have been favorably influenced. Lupus erythematosus may be cured by this method, which appears to be more rapid than phototherapy. The effect in cases of tuberculous lupus is a matter of controversy. The author is of opinion that the method may be used as an adjunct to the light treatment. He states that the effect is partly due to the liberation of ozone. He concludes that high frequency currents are a valuable addition to the therapeutics of a certain number of dermatoses.—*Modern Medicine*, March, 1903.

The China Medical Missionary Journal.

VOL. XVII.

OCTOBER, 1903.

No. 4.

Editorial.

PRESIDENTS' LETTER.

We have asked our President to write us a more or less regular "letter" expressive of his ideas and plans on behalf of the Society, and we publish in this issue his first gracious response to our request. It embodies some very NEAL-IAN (synonymous with thorough excellence) ideas on matters of great practical importance. Let no member fail to read the letter in question attentively and act thereon when the times for action shall arrive.

In his personal letter Doctor Neal says:—

"Would you feel like renewing the attempt to get statistics of all hospitals and dispensaries in China by sending out blanks with the next and succeeding numbers of the JOURNAL? It seems to me it would be fine if we could get a thoroughly reliable list of all such institutions in China, together with their statistics for some one year, but I fear you will find it a hopeless undertaking to get the two hundred medical missionaries to do such a simple thing as fill out the most simply-constructed sheet of statistics you can invent. I wish that half the medical men would do what they easily can do to support the JOURNAL; the other half we could afford to ignore."

Yes, we do feel inclined to "renew the attempt," and shall do so, making our beginning by issuing a circular in our January issue, when all statistics for the year are supposed to be in. The minute you open that issue (January 1st or thereabouts) please turn your chairs around to face your desks and fill out the enclosed "blank" *immediately*. You will have your statistics at hand. You will be just as busy any other time. It will only take five minutes by the clock, and it will be a real help to every other medical missionary in China. If you do this thing heartily and promptly you may consider yourselves from thenceforward as having done the square thing at least once by the Society, which means your fellow-workers in the East. But if any one fail, put it off, or forget it, and so do not rise to this small occasion please let that man (or woman) henceforth consider himself a semi-parasitic individual of a feeble and selfish turn of mind, one of what Dr. Neal calls "the other half which we could" but do not wish to have to ignore. Please rise to this small occasion in January.

W. H. J.

CHINESE HYGIENE, BY ARTHUR STANLEY, M.D.,
HEALTH OFFICER OF SHANGHAI.

The article published under the above title in our issue of April last, although one of the most striking that has appeared in the JOURNAL during the year, was purposely not commented upon editorially until this time that we might note the natural reaction of our thinkers in China to the views expressed therein, and even at this late date we feel some diffidence in speaking critically (never criticizingly) of the views of the most distinguished hygienist in the East. The paper is one of two promised us by Dr. Stanley, the first to express his views on Natural Chinese Hygiene, the second to be a discussion of certain practical methods of dealing with problems involved in the hygienic handling of large masses of Chinese and the improvement of the hygiene of Chinese cities.

We cannot but think, in spite of the general feeling of other medical missionaries in China as suggested in some letters published in "Correspondence" in our last issue, that Dr. Stanley is correct in his views that as far as natural hygiene goes Chinese hygiene is in some important respects superior to that in both the large cities and in the country districts of Europe and America, as noted in, for example, London, Philadelphia, Naples especially, and Italy in general. While in hospital service in Philadelphia we have called for a child with double lobar pneumonia and found the child in a garret room approached by a narrow ladder-like staircase, one of eight people in a room ten by twelve feet, two minute windows nailed down, so that neither of them could be opened or had been opened for an indefinite period of time, the room crowded with old clothes, vermin and other live stock, stale food and urine standing, and the air literally rotten. This, with the open air life of the Chinese is, we believe, never found in China, even in the dirtiest of native cities, and it is but an example of the sort of thing that Dr. Stanley had in mind when he wrote his article and which others as ourselves have often thought of when thinking along these lines and at the same time reviewing our slum experiences in the home land.

As to what scientific hygiene, an altogether different thing from natural hygiene, can do for the Chinese, we shall leave Dr. Stanley to speak for himself. No one in China is more competent to speak or more worth the hearing on this subject than he.

But there are some other questions related to the subject of natural hygiene on which we, and certainly a majority of the medical men who know the Chinese best, are not convinced by Dr. Stanley's expressed views and on which it is hard for us to even see how Dr. Stanley has arrived at his conclusions. We refer chiefly to the subjects of opium smoking and alcoholism, and to prostitution. Drunkenness is less common, except among foreigners, in China than it is at home. But there is a great deal of drunkenness and of chronic alcoholic excess. I think in China we must make this distinction, for alcohol does not affect the Chinese quite as it does the foreigner. A great deal we have seen for ourselves in China. No one who has given much *chloroform* to the Chinese could fail to notice the frequency of the alcoholic re-action. In Shanghai we expect it in about one in ten to twenty anæsthetizations of men of the coolie or shopkeeper classes. It is in these often as marked as I have ever seen it at home. The first case I ever saw was in the clinic of Dr. J. William White in the University of Penna. hospital—an Irishman who went into a perfect tantrum at about the third or fourth breath of *ether*. The reaction is characteristic and almost pathognomonic of the alcoholic habitué. We see drunkenness of the "boozy" and blur-eyed type among the young bloods of Shanghai who do much feasting, and are wont to wind up the same with a game of *hwah-joen*. The *pung-dien* vocabulary is full of words about drinking to excess and drunkards, and all that pertains thereto.

Dr. Stanley's words on "opium smoking" have been widely differed with. It is perhaps doubtful if a single medical man that has worked among the Chinese and speaks the language well enough to be in close personal touch with the people, would speak so lightly of the evils of "opium smoking" as does Dr. Stanley. If he had said, more nearly equivalent to coffee drinking and cigarette smoking, it would be easier to understand his feeling, but the words "tea drinking and tobacco smoking" seem to picture for us some of the sweetest and happiest hours of the day; dainty tea-tables at 4 p.m., and the unspeakably restful cigar after a day's hard work, and when we try to compare these things to "opium smoking" we see side by side therewith a long dark passage and sprawled on each side a row of sallow-goggle-eyed intemperates, mouths open, eyes closed or vacant, heavy noxious air, poverty, dirt, waterlogged morality.

With this exception Dr. Stanley's words on this subject are chosen with the greatest care and reasonableness, and we should like to have

him confess that "tea drinking and tobacco smoking" was an exaggeration, suggested by the too strong words of the too vehement.

Personally I do not believe that opium smoking is a worse evil in China than is alcoholism in England or America. Alcoholism gives the greater number of TOTAL WRECKS—physical and moral. Opium smoking gives the far greater proportion of intemperates—moral and physical.

Prostitution and venereal disease.—We believe that there is more venereal disease, per capita, in Shanghai than in Philadelphia. Certainly we have as many cases of venereal disease in our surgical clinic of 75 out-patients as was the average in the 150 patient clinic at the hospital in Philadelphia when we served there under Dr. Gibbon and others, and in type the cases are far the more exaggerated. The so common word *beh-siang* indicates the common origin, and the vocabulary of "prostitution" is one of the most fertile in the language. There is an alley opposite St. Luke's Hospital and a little down the street in which a number of prostitutes ply their trade. Almost any evening they may be seen standing at the arch or prowling on the street, and if one stands at the open hospital windows after dark they may be distinctly heard calling out "their prices" as the coolies pass by—"twenty cents" or "thirty cents" according to the market, and to judge by appearance business is usually excellent on Nanjing Road. Similar scenes are as common after nightfall in Shanghai as mosquitos (to exaggerate slightly), and if we are warranted in judging by the openness of the practice and the apparent results we should not hesitate to express the impression that there are more genuine prostitutes (not second wives) per capita in Shanghai than in any other city we have ever been in long enough to judge. But appearances may deceive—laws, regulations and public sentiment affect appearances greatly, and one should have careful statistics before making definite statements. This much in general we do know, that in Hongkew prostitution among the lowest classes is very common, and judging by appearances in the upper Foochow Road districts of Shanghai it is equally common among the *Yeu-dong-dien-kuk*. With regard to interior China, others must speak.

Dr. Stanley is a careful writer, and even those who do not altogether see things as he does, must weigh his words carefully and review their "facts" with carefulness.

W. H. J.

BOONE'S POSTURAL TREATMENT OF SELECTED CASES
OF HYPERTROPHY OF THE PROSTATE WITH
RESIDUAL URINE.

Dr. H. W. Boone, of Shanghai, one of the most experienced surgeons in the East, publishes in the *Albany Medical Annals* for July, 1903, some exceedingly suggestive thoughts on the treatment of Residual Urine in Chronic Hypertrophic Prostatitis which we quote in full from our contemporary for the benefit of those who do not see the original, both because of the practical character of the method of treatment and because of the special interest which attaches to the original work of every member of our Society in China.

Any suggestions on the treatment of this troublesome condition must be welcome to those of us who are handling, as most of us are doing, to a greater or lesser extent, genito-urinary cases, and any suggestions from Dr. Boone should be doubly welcome, for the reason that in everything that he puts before the public, as in the detail of his practice, he is preëminently practical, painstaking, conservative and, in the very best sense, clever, ingenious. In a recent talk with the Doctor he expressed the hope that if his method should be tried by his colleagues in China, he would be glad to hear something by way of results, and we shall be happy to report any such if they are forwarded to us and to give the Doctor the opportunity to express himself further on this interesting subject.

There is one question we did not put to the Doctor, and that is as to why he did not publish his article in the *MEDICAL MISSIONARY JOURNAL*, of which he is one of the founders and of which he was for some time the editor. We take for granted it was due to an impression on his part, apparently shared by not a few of those who owe this *JOURNAL* everything they write, that we are burdened with an excess of original contributions. The impression, as we pointed out in our last issue, is a mistaken one. We are ready to make the *JOURNAL* a medical daily instead of a quarterly at any time that the change seems warranted, rather than refuse contributions of such worth as those which come from the experience of Dr. Boone and his professional brethren in the East.

W. H. J.

CLINICAL AND PATHOLOGICAL NOTES.

Albany Medical Annals, July, 1903.

Postural Treatment in Cases of Hypertrophy of the Prostate with Residual Urine. By H. W. BOONE, M.D., Professor of Surgery, St. John's Medical College, Shanghai, China.

W. H., aged 60, June 10, 1902, is a delicate looking man. Complaints of pain above pubes and in perineum. He has difficulty in starting urination, the stream is weak, bladder always feels uneasy. At times urinates very often at night, has one small pile. On digital examination by rectum find enlargement of lateral lobes of the prostate. After he had voided his urine, I passed a Condé catheter and drew off nearly three ounces of urine.

I was anxious to find some other method of relieving him which would avoid the necessity of the constant use of the catheter. There was an old bamboo lounge in the room with a hole in the cane bottom, so I placed a vessel under the lounge and told the patient to lie on his face the next time I visited him and try to void his urine into the vessel; he did so, and I then used the catheter and drew off less than one ounce of urine. The next day I got him to lie down in the left latero-prone position and pass his urine. On passing the catheter no more urine could be drawn off, and we found that he could obtain complete relief by using this position whenever he desired to urinate. I saw him from time to time for three weeks longer and he was quite contented; he had no more pain, no uneasy sensations in the bladder and he voided his urine without difficulty. He then went away and I lost sight of him. I have been looking for another patient to try this method of treatment on, but no case has occurred in my practice.

In my case the left latero-prone position gave the greatest relief. In another case the prone position, or that with elevation of the foot of the couch at the same time may be more satisfactory. The position of the patient could be varied until it was discovered what one was the best for his individual case.

Anything which will save a patient from the constant use of the catheter and its accompanying dangers is greatly to be desired, and I hope that the readers of this Journal will try the postural method of treatment when an opportunity arises and report the results of success or failure. If only a small percentage of cases derive relief from this treatment, it is so simple and safe that it is worthy of trial before other methods of treatment are resorted to.

Miss Richmond, in the *Spirit of Missions* for June, 1903, describes in the most glowing terms the new buildings of St. Elizabeth's Hospital, Shanghai, at the same time speaking feelingly as well as amusingly of the things that are no more. She says: "We think of the old 'women's wards,' with dark passages and unexpected steps up and down; with a few inconvenient foreign rooms here and a few rough Chinese rooms there; with a drug room only equalled for lack of size by the office behind it; with an operating room of which it was once said that when doctor, assistant, patient, and instruments were all there, the windows had to be opened to give room for the doctor's elbows."

PRESIDENT'S LETTER.

At the request of Dr. Jefferys, I am writing the following letter to lay before the China Medical Missionary Association a few matters which seem of timely interest just at the present moment :—

First. Medical Statistics.

As this is the last number of the JOURNAL which will reach subscribers before the end of the current year, it seems fitting to call the attention of the members of the Association to the desirability of sending to the editors of the JOURNAL statistics of their work during the past year for publication. It is a melancholy fact that there is not now, and never has been, so far as my knowledge goes, a reliable and full list of all hospitals and dispensaries in China, nor does anyone know what the aggregate attendance at our hospitals has been in any year. An attempt was made in 1900 to collect the statistics of all medical work in the empire, but the results were most disappointing; only forty-three hospitals reporting, though special blanks were sent out, so arranged as to require the minimum of trouble in filling in. If this attempt to collate the returns from all the provinces had been successful it would have formed a valuable basis for comparison with the development during the years succeeding the great Boxer outbreak, when so many hospitals were destroyed.

Most of us, no doubt, keep our records according to the calendar year, and it would seem to require a very small expenditure of time to send a brief note to the editors giving them the figures of our year's work, under such heads as "Total Number of Attendances of Out-patients," dividing this head, if convenient, into "New" and "Old," "Number of Hospital In-patients," "Out-calls," "Major Operations," etc.

Do we not owe it to ourselves, our colleagues, and our supporters to let the world know what we are doing? I am confident that a truthful statement of what is being accomplished from year to year, in the line of medical missionary work in this vast empire, would be most impressive and helpful of every friend to medical missions.

Second. Nomenclature.

It is now over two years since the list of terms adopted by the Association's Committee on Nomenclature in *anatomy, physiology, etc.*, was sent out, and so far there has been, so far as known to the writer,

very little criticism either in the columns of the JOURNAL or in private letters of the work of the committee. It is very desirable that these terms should be criticised very freely by all those who are interested in the training of medical students or the making of medical books. It will also be well if those who are anxious to see the work go on to completion will write to the chairman of the committee, Dr. Whitney, or to Dr. Cousland, the secretary, urging upon them their wishes in the matter. The committee is the servant of the Association, and unless the members of the Association show a real interest in the work the committee is trying to do, there is little encouragement to hurry up matters. It seems eminently desirable that this work in nomenclature should be pushed to a conclusion as speedily as possible, so as to allow of the revision of old editions of existing text-books and to facilitate the issue of new ones. One of the most useful of our present lot of medical text-books is Dr. Kerr's Practice of Medicine, a most excellent book, but one which is greatly in need of revision, as it is now over twenty years old. Who would think now-a-days of studying a book written twenty years ago, and not revised since, and yet how can the book under discussion be revised until the Nomenclature Committee gives the revisers new terms consistent with those already adopted in anatomy and physiology? Another reason for hurrying up the work on nomenclature is that already a new edition of Gray's Anatomy is in press and a new physiology will soon be ready for publication, and unless the terms in *practice* and *surgery* are soon ready, so these books can be revised, our students will be placed in the embarrassing position of learning the new terms in these preliminary branches and the old ones in the more practical branches, thereby leading to great confusion.

Third. Shall we have a meeting of the Association next year?

As it is already thirteen years since there has been any meeting of the Association it would seem desirable that we should meet some time in the near future, but whether or not we can meet so soon as next year is a question. On page 197 of Vol. XVI of the JOURNAL will be found a short list of subjects which might profitably come up for discussion at a meeting of the Association; those interested will doubtless think of others. The officers of the Association will be very glad to hear from individual members what their wishes in the matter are. If the conferences at Kuling and elsewhere can be made such a success from time to time, surely a general meeting should be quite as

profitable, and would have the authority to accomplish tangible results which the local meetings lack. A meeting of the general association once in five years could surely be arranged and would certainly not be too frequent.

J. B. NEAL.

RESOLUTION ENDORSED BY KULING
MEDICAL CONFERENCE.

At a meeting of medical missionaries held at Kuling on July 24th, 1903, where the question of hospital construction was discussed, it was unanimously agreed that the editors of the *MEDICAL MISSIONARY JOURNAL* be asked to endeavor to collect copies of plans, specifications, and cost of every hospital in China, and that such plans be deposited for easy reference in a portfolio to be kept in some convenient place in Shanghai.

It was also suggested that seeing so many medical missionaries now gather annually from great distances at Kuling, in Central China, some arrangements might be made whereby the portfolio is forwarded each season to that place for reference to the many seeking information in hospital erection. It was thought that the Central China M. M. Association would gladly undertake the care of the plans, etc., so long as they remained at Kuling.

Suggestions were also made and heartily supported that the editors of the *JOURNAL* be asked to publish in each issue one or more ground plans of hospitals already in existence. If a photograph of the completed hospital could also be published, so much the greater would be the usefulness of the *JOURNAL* to the many newcomers to China.

The above resolution was afterward presented at the Kuling Medical Conference and regularly endorsed.

G. F. DE VOL,

Secretary of Conference.

Correspondence.

SECRETARY'S REPORT OF THE KULING MEDICAL CONFERENCE.

The physicians gathered at Kuling met again this year in medical conference. The sessions, four in number, were held on the 18th, 20th, 21st, and 22nd of August in the Estate house Council room.

Dr. Davenport presided. Dr. De Vol was appointed Secretary for the occasion.

At the first meeting Dr. Woodward presented an able and exceedingly practical paper on the subject of Asepsis and Antisepsis in Mission Hospitals. A free and helpful discussion followed.

Dr. Logan next presented a strong and carefully prepared paper on the Microscope as an Aid to Diagnosis. In the discussion that followed, Dr. Hodge presented a folding instrument made by Baker of London peculiarly adapted for use in China on account of its compactness and simplicity. Both gentlemen were requested to send their paper to the *MEDICAL JOURNAL* for publication.

The second and third sessions were devoted to the discussion of the desirability and practicability of opening a Union Medical School in Central China, at which the Chinese student may obtain a more thorough and complete knowledge of medicine than is possible in the missionary hospital. Dr. Hodge, by request, gave a short history of the scheme for a Union Medical School.

The question as to what language should be used for teaching the medical student was then regularly taken up by Dr. Hodge. He considered English most desirable to begin with or a combination of English and

Chinese with the ultimate view of teaching in Chinese.

Dr. Hart presented the difficult subject of Finance. His plan showed that he believed that a plea for a large and properly equipped school would be received with such favor by both native and foreigner as to guarantee the success of the enterprise.

The most desirable location for the school was next discussed by Dr. Gillison. It was his opinion that, owing to the central position and large number of medical missionaries stationed at Hankow, that city would be the best place for the school. The same speaker also presented a course of study that he deemed advisable for such a school.

At the opening of third session Dr. Davenport pointed out briefly the magnitude of the undertaking and the responsibility that rested upon the conference in considering the plan for a union medical school in Central China. A long and animated discussion followed, in which the difficulties, as well as the advantages of the project, were presented.

Dr. Hodge urged the necessity for immediate action, on the ground firstly of economy, secondly efficiency, and thirdly the opportuneness of the hour.

As to the matter of language Dr. Gillison strongly urged that the Chinese language be used in teaching, pointing out the fact that this would be an incentive to the translation of more medical books into the native tongue.

Finally it was moved by Dr. Hart, seconded by Dr. Hodge, that the general plan for a Union Medical School located at Hankow be endorsed by the conference.

The motion was carried with a single dissenting voice.

The whole matter was then referred to a committee of those especially interested in the movement.

The fourth and last meeting of the conference was devoted to the subject of methods in medical mission work. Dr. Wood took the chair, while Dr. Davenport presented a paper, most instructive and interesting. A free and profitable discussion followed.

By vote of the conference Dr. Davenport was requested to send his paper to the *MEDICAL MISSIONARY JOURNAL* for publication. A general expression of appreciation of the benefits received from the various

discussions of the conference gave rise to a motion that other conference be arranged for next year during the week previous to the ratepayers meeting. The exact date to be fixed later. The motion was unanimously carried.

Finally the following topics were suggested as desirable for consideration at the next conference:—

I. Skin Diseases, II. Diseases of the Eye, III. Leprosy, IV. Obstetrical Asepsis, V. Intestinal Disease of Children. VI. Notes on Surgical Cases.

GEO. F. DE VOL,

Secretary.

BIRTHS.

July 14th, at Mo-kan-shan, the wife of Doctor M. D. EUBANK, A. B. M. U., Huchow, of a son.

August 17th, at Kuling, the wife of Doctor EDGERTON H. HART, M. E. M., Wuhu, of a son.

ARRIVALS.

August 27th, Doctor IDA STEVENSON, M. E. M., Peking (returning).

September 1st, Doctor M. A. BYNON, A. P. M., Shantung.

September 25th, Doctor E. D. VANDERBURGH and family, A. P. M., Hainan (returning); Doctor LOUISE K. KEATON, A. P. M., Peking.

MARRIAGES.

At Shanghai, July 11th, Doctor JAMES BUTCHART, Lu-cheo-fu, and Miss NELLIE DAUGHERTY, of Nanking, both of F. C. M. S.

At Shanghai, September 21st, Doctor W. KELLY, Cumberland P. M., and Miss G. M. HILL, M. P. C. M., both of Chang-teh, Hunan.

At Kiukiang, September 26th, Mr. JOHN BERKIN, Kuling, and Doctor LEILA L. DOOLITTLE, A. P. M., of Siang-tan, Hunan.

At Shanghai, October 8th, Doctor W. A. YOUNG, U. F. C. S. M., and CLARA second daughter of Rev. G. T. CANDLIN, E. M. M., of Tientsin.

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TO

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HOSPITAL FOR MEN, METHODIST EPISCOPAL MISSION, CHUNGKING.

The

China Medical Missionary Journal.

VOL. XVIII.

JANUARY, 1904.

No. 1.

Original Communications.

[All papers must be in the hands of the Editors two months before date of publication to insure their appearance in the following number. The editors cannot undertake to return manuscripts which are sent to them. A complimentary edition of a dozen reprints of his article will be furnished each contributor. Any number of reprints may be had at reasonable rates if a *written* order for the same accompany the paper.]

THE PRACTICE OF ASEPSIS IN MISSION HOSPITALS IN CHINA.*

By E. L. WOODWARD, A.M., M.D.

Even in the West the practice of asepsis fails of obtaining the ideal standards occasionally, in the operating rooms of eminent surgeons, as the writer has had occasion to note. Nevertheless he was hardly prepared to expect the opinion of a missionary physician of some experience that 'there was no asepsis in China.' Personal observation justifies a very emphatic dissent from this sweeping generalization; but it is unfortunately true that the peculiar conditions under which we labor in China make the attainment of routine asepsis in the operating room of the average mission hospital vastly more difficult than at home. The problem of how this is best attained, or how far it is even to be attempted, has had different answers—as well illustrated by the JOURNAL of last year in two articles bearing upon the subject.

One writer advocated the employment in our hospitals of only the *very best* of means and methods regardless of expense, both as a professional duty to our patients and as being the cheapest in the long run. The other asserted that astonishing results could be obtained with a largely improvised equipment and with a magnificent disregard for conventional aseptic procedure. Perhaps opinions will differ as to which was the correct view; in my own judgment *neither*. For the standpoints of the writers did not correspond with that of the average medical missionary in China.

*Read before the Kuling Medical Conference of August, 1903.

One wrote from St. Luke's Hospital, Shanghai, a long established, thoroughly equipped and self-supporting institution, with two physicians in charge and a staff of thoroughly trained assistants. So fortunately circumstanced, he would naturally advocate standards of unqualified excellence. But such resources are not usually available to the medical missionary except in certain ports. The other wrote from the far interior and was evidently engaged in a type of pioneering that involves many difficulties and narrow limitations. As a testimony to the possibilities of good, even under the most unfavourable circumstances, the article was perhaps of value; but in so far as it advocated such make-shift methods beyond circumstances of extreme necessity, it cannot be too strongly condemned. The "aseptic" conscience, so priceless and fragile, *could* not long survive in such an atmosphere.

The place of the average medical missionary is midway between these two extremes. If we cannot as yet hope to emulate the standards of certain port hospitals, yet our resources are considerably better than those of the itinerant pioneer. Native drugs we do not have to use; *antiseptic* precautions at least are always attainable; nor are Chinese cotton, paper, and string economical factors in our important surgical dressings.

It is not the purpose of this paper to describe the limitations of the hospital in the interior with its one doctor, locally trained assistants, enormous practice, and small income. The majority of us know them only too well. But let us rather discuss the problem of how a satisfactory routine asepsis may be effected under such conditions. To this end there are at least four essentials, about each of which I shall make a few practical suggestions, mainly the result of my own experience. They are:—

First. A suitable operating room.

Second. An adequate yet economical equipment for same.

Third. Trustworthy and well trained assistants.

Fourth. A simple yet reliable aseptic technique.

First. The operating room.—It is to the skill of the surgeon preeminently that Western medicine owes its high status in China. Unaccountable as it may be, it is nevertheless true that the vast majority of the inhabitants of the "Middle Kingdom" still believe in the superiority of native remedies for "internal" complaints, while readily conceding the superior skill of the foreign doctor in "external" or surgical diseases. The reputation and success of our hospitals therefore depend in a peculiar way upon the work of the operating room, and no effort should be spared to have this room especially designed and built for the purpose, so as to secure the important factors of convenient yet isolated location, good light, warmth, and above all cleanliness.

My own experience recommends a room of very moderate size, as more quickly and economically heated during the winter and more readily

conducting to scrupulous cleanliness; as unnecessary apparatus must be kept elsewhere. The floor should be of cement or of well fitted flooring varnished with Ningpo. Isolation from the clinic quarters is particularly desirable, and location in the second floor has many advantages. Septic operations, save in exceptional cases, should be performed in the clinic surgery and the operating room reserved for non-septic cases. In my own hospital this rule is strictly enforced, and the clinical surgery, which is a room twice the size of the operating room, serves the third purpose of affording a convenient place for changing all septic dressings from the wards.

Second An adequate yet economical equipment for the operating room. —The operating table of varnished teak wood designed by Dr. Boone, of Shanghai, has served me admirably as an economical substitute for the expensive glass and iron tables that some think essential. I believe they are also used in many other mission hospitals. My surgical clinic is furnished with four similar tables, made from the same pattern by a local cabinet maker at the modest cost of five dollars each. They are a great convenience in changing dressings for the ward and clinic when they are often all employed at once. One of the most important requisites for the operating room is an abundant supply of hot and cold water that *we know* to be absolutely sterile. A standard germ proof filter may be one solution of the problem. I have not tried it. Certainly the all-too-common practice of having the water for the operating room boiled in the kitchen and brought from thence by hospital coolies is highly objectionable. The boiling and subsequent handling of the sterile water should be under the direct and constant supervision of a trained assistant or of the surgeon himself. One of the most valuable fixtures of my clinical surgery is a tin-lined copper boiler of sixty gallon capacity, with tight fitting lid, glass tube gauge indicating height of contents, nickel top, and flue through centre for conserving to the utmost the heat from the little charcoal stove underneath. It supplies sterile hot water on top, in any quantity, at any time, and at a cost for charcoal of about \$1.00 a month. It is located most conveniently and so as to be under constant supervision. At the end of each day the hot water from this tank is transferred to a somewhat similar receiver just beside it and is used as cold sterile water on the following day. A still more perfect arrangement would be to have both receivers of the same pattern, so that each could serve on alternate days as the boiler, and the cold sterile water could be drawn as needed direct from the receptacle in which it was boiled. By a simple transfer of apparatus this same charcoal fire is used very economically for distilling water and for steam sterilization as occasion requires.

My steam sterilizer for gowns, dressings, etc., is a very nice one, and was obtained in Tokio for Y. 60.00. The hot water sterilizer described above

was bought of the same firm* and cost Y. 20.00. My operating room has a full equipment of glass and iron instrument tables, glass irrigators, solution flasks and bowls, dressing jars, etc., also obtained through this firm. Finding such apparatus very cheap and good in Japan, I felt quite justified in having a complete outfit. For if neatness of attire is one mark of a gentleman, certainly neatness of outfit is a corresponding requisite of an aseptic operating room.

Third. Trustworthy and well trained operating room assistants.—This is the crucial point in the whole matter. One may spend thousands on the operating room and its furniture, one may adopt the most ideal methods and the choicest antiseptics; but if the technique of the operating room assistants is untrustworthy, *routine* asepsis will be an impossibility. The surgeon may afford the time occasionally to supervise every detail of the preparation for some major operation; but he must trust to his assistants for routine preparations. How difficult it is to make our Chinese helpers realize the essential importance of the apparent trifles of aseptic technique. How long before we feel that even the best of them may be trusted in the matter. How often the carelessness or stupidity of a secondary helper brings to naught the most elaborate precautions.

What is the remedy? Let us hope that in time one will be provided by the thorough education of our native assistants in high grade medical schools. For the present, however, we are thrown on our own resources for the training of our assistants. Even under such limitations most gratifying results may be accomplished with patient and well directed effort. We must take none but the best from the mission schools for our medical students, and we can often get them. We must inculcate in them the pride of personal responsibility and the habit of exact obedience in all that relates to the operating room. We must take pains to instruct them not only in the minutiae of aseptic procedure, but also in the reasons underlying them. And finally, we must never indulge a laxity in ourselves that we would condemn in our own assistants.

Fourth. A simple yet reliable aseptic technique.—In the solution of this important question, there will probably be as many methods as there are hospitals, for opinions and preferences are widely divergent as to antiseptics and other details of technique. Suffice the caution, that in the sometimes necessary attempt to economise time and money by simplifying our technique for routine work, we must use the greatest discrimination and err always on the side of safety. If we have ingenuity in improvising economical make-shifts, let us regard the exercise of it as a pro-

*The address of this firm is: S. Goto Fu-undo, Surgical Instruments, etc., Awajicho, Kanda, Tokio, Japan.

professional humiliation rather than as a subject for pride, and then we will tolerate such economies no longer than absolutely necessary. They are apt to impair our own standards, they hinder the development of our students, and worst of all they are positively injurious to our patients. The preparations for an aseptic operation may be tedious and expensive; but sepsis from defective technique will in the end occasion far more expense and trouble, is often a crime against the helpless patient, and is inevitably prejudicial to the hospital obtaining that favor and confidence in the community which is essential to its highest mission.

SOME METHODS OF MEDICAL EVANGELISM.*

Medical missions in China have been organized through the missionary efforts of evangelical churches. A medical mission therefore is a gateway to the Chinese heart, giving passage through the hedges of suspicion for the seeds of the gospel of Christ. How useless this gateway when no fertilizing life-giving knowledge passes through it, how useful and full of joy when it conveys life to the fields on which it opens. And what fields need fertilizing life more than the barren wastes of these hearts? What laborers can better prepare the soil and plant the seed in the souls of these patients than the doctor, helpers, coolies connected with this gateway? What fruits better than the rich foliage of gratitude, the flowers of respect for the foreigner and his religion, and, best of all, the fruits of the sowing recasting themselves to live again for others.

In accepting your kind invitation I shall endeavor to deal only with methods and means, physical and spiritual, used in the prosecution of the spiritual work given to us medical men and women in charge of medical missions.

In order to obtain as broad a view as possible I have addressed letters to, and received replies from, most of the principal hospitals and dispensaries in China. While the information gathered from these sources will be used collectively, still I wish here to express my indebtedness to each of those correspondents for his kind efforts in furnishing information regarding evangelistic work.

The agencies for our work are at hand—dispensaries, hospitals, helpers, patients, appliances, medicines, the Bible, books, tracts, calls to private houses, reputation from operations and cures. These are, however, but tools. We cannot spend all our time in repair and preparation of them. We want fertilization, salvation, everlasting life in these fields of ours. How are these implements to be used to obtain the best results? We cannot throw plows and

**Note.*—This excellent article is unfortunately not signed, and on account of the absence from Shanghai of one of the Editors, we are unable to add the author's name at this time.

harrows, seed, and hoes into the field trusting to their chaotic action because we do not find time to use them properly. May the workman in the field not stop in the midst of his labors to ask advice of the Master? May not a surgical operation, however simple, be better done, the patient's heart more deeply touched when earnest prayer has been offered at morning service for guidance? And why not, as one physician does, pray occasionally in the operating room when a serious case is at hand? Cannot the time be spared? Is the Great Physician so seldom present there? Which do we wish to declare, our medical skill or the power of God? Even Christ gave God the glory.

Much has been written and said upon the subject of the missionary physician personally and his spiritual life. It is hardly within the province of this paper to delve deeply into this topic with the exception of the relation of physician and patient. Undoubtedly sympathy (and its synonyms fellow-feeling, put yourself in his place), is a quality of prime importance. This ground is hard and stony; why? This patient has troubles of body and soul. How can we reach the disease? How heal the soul? The thoughtful physician seeks to locate in his own body the pains and aches described by his patient, thereby more surely reaching a diagnosis. So, it seems to me, a sympathetic heart will feel the patient's barren darkness as its own—inversely reasoning out the road from and to the soul. Alas, many of us have no time to so fully investigate either disease of body or soul. We cannot plant but must sow broadcast. Still a sympathetic cast will often prevent the grain from falling on stony surface but rather cause it to lodge in the fertile soul just beneath.

Despite the pressure of work there is a healthy spirit of sympathy existing in the medical missions in China to-day. A majority of physicians find time for bedside work. From some it is evident that patients appreciate such friendliness and look forward with pleasure to these bedside chats. Only one physician finds other work too pressing. Nearly all state that the tone of their work is that of friend and helper to their patients. One makes an effort to speak of Christ to at least one patient each day. A good resolution to imitate. Another determines to speak to each patient at least once during his stay. Still another seeks out those bedridden and personally talks with them. This is direct and careful work. One-third take charge of ward and other services. Twenty per cent. do other personal work as opportunity presents. One takes his turn in leading Sabbath service. Another makes it his duty to be present at all public meetings.

Just at this point comes in the question of the physician's relation with the out-patients. At least fifty per cent. of physicians do not personally address the out-patients regarding the gospel. The balance speak at least occasionally, and one-half of these make it a *rule* to speak to out-patients

just before clinic. It seems to me that these latter give out an impression of personal religion, which impression, as far as the out-patients are concerned, would seem to be lacking in the work of those of the first half. I can say from personal experience that I have seen out-patients refuse their turn for treatment saying that they preferred to stay in chapel and listen to the foreign doctor talk of the gospel. Many of these patients I know did not make this an excuse in order to await treatment by myself.

It has been my own practice to lead daily morning prayers with the patients and helpers, to have bedside talks on Sabbath, to conduct Sabbath evening service, using the magic lantern, and best of all to take advantage of times when a leading thought or word may catch the patient unsuspecting and unprepared to resist the planting of the gospel seed. It is these fragmentary conversations at odd times which in my experience seem to catch the heart's door ajar, and which one might say act somewhat in the line of hypnotic suggestion, bringing a more ready assent to the correctness of the view taken. Each of us, however, has his own ideas concerning the proper balance of medical and spiritual work done by himself. Medicine for the body and Christ for the soul. The proper adjustment of this balance seems to be still a mooted question.

Native evangelists, Bible-women, school teachers, native doctors, medical students, active church brethren, coolies and other employees all are enlisted to plant the gospel seed. Thirty per cent. of hospitals employ no special *native evangelist*. Six per cent. have part of the time of a native preacher. Over sixty per cent. employ such a helper to give his entire time to both in- and out-patients. It would seem that every hospital should have a man of this sort. As one correspondent suggests, 'not to preach at them, but to talk with them.' He may also spend part of his time looking up former patients. The *Bible-woman* is manifestly indispensable where there are female patients. Whether in hospital or dispensary she has many opportunities. The best results in my own work, as well as that of many others, are easily traceable to the earnest Bible-woman. She may likewise spend some time looking up former patients. *School teachers* are employed in a number of hospitals to teach in-patients and their children to read. The idea is, that if taught only a few characters they will be able to pick up many more and the Bible truths will follow them more constantly when they may read a little from tract or Testament. Many report patients as eager to learn. The *native doctor* should be induced to show his colors also. In our own hospital the foreign physician has charge of morning prayers and the native doctor is entrusted with the entire charge of evening prayers. He is of course a Christian. Four hospitals use their *medical students* in gospel work. One physician enrolls no one but Christians as students. They have charge of ward services and exert their influence in general.

What should be the attitude of the *coolies* and other *employees*? Should these employees be Christian? Fifty per cent. of hospitals reply in the affirmative. In a majority of these the nurses and others are encouraged to speak to patients on Christian topics. They also lead the ward meetings.

The *native Christian brother* is a power which seems to be turned to good account in twenty per cent. of medical missions. This subject has peculiarly interested myself. Here is apparently a source of change for the patients and also an object lesson to them that their own people believe and live what those hired by the foreigner teach. These Christians are encouraged to 'drop in' on friendly calls, and also to take part in prayers, to speak to dispensary patients, and to teach the in-patients to read. Epworth Leaguers and Christian Endeavorers are given opportunity to test their ability in bedside visits. In one hospital a bed is assigned to each member of these societies.

Medical missionaries evidently believe in the printing press. All use *printed matter* of some form in their work. Fifty per cent. sell tracts and books, the balance give away tracts, seldom selling anything but gospel portions. Some physicians give printed matter to in-patients and sell to out-patients. Others have calendars sold at a nominal price. Again sheet hymns are given away. There are many special leaflets. I regret there is not time to present a number of them, for many give evidence of careful preparation. Some of the plans for sale of tracts are interesting. One evangelist sells to out-patients while speaking in the waiting room. In other places a glass front case is arranged near the outer gate where sample tracts are exposed with prices marked. Others have special colporteur seated near the gate, whose whole duty is to sell literature. The following has also been suggested: The speaker in the waiting room to take as his topic the title of a tract and explain it together with a part of the tract, finally stating that the matter is more fully explained in the leaflet for sale at the door. Still another plan has the patient pay a number of cash and receive an assortment of printed matter in return. The demand for tracts which are sold varies in different localities. One letter says not one in a thousand would buy, another that the patients cannot read and therefore do not buy. There must be a way, however, of creating a demand for tracts, for as above stated fifty per cent. sell and some report a ready sale. Naturally one values that for which he has expended something, therefore it would seem that the sale of tracts is the ideal plan.

Where tracts are not sold they are occasionally given to patients by the physician himself. He also loans them to the in-patients. He generally carries a pocketful when making professional calls. Especially does he give them to in-patients on their departure.

In connection with this subject of tracts, the suggestion is offered that a number of sample copies of special leaflets issued by the various hospitals be sent to the secretary of the Medical Missionary Association, whence a collection may be sent to any physician applying for them. Thus a more general knowledge and use of good material may be fostered.

There are many forms of *gospel services* for in-patients. Morning prayers in the chapel for the entire population of the hospital predominate, i.e., seventy-one per cent. Evening prayers are the rule in forty-five per cent., and as in the morning service, the leaders are foreigners, helpers, and students. Occasionally the wards are simultaneously or alternately used for these services. Twenty-nine per cent. have afternoon meetings. Forty per cent. hold two services daily, sixty per cent. one daily, and five per cent. three weekly. Mid-week prayer meetings, Sabbath Bible classes, and Sunday schools are also called into use. Some missionaries make an effort to have the ward services conversational in form. They find that patients thus more readily take part in reading and questioning. A number have special prayers for the hospital staff either morning or evening. For Sunday evening one lady invites the patients to her study where are new and interesting things. After-meetings are found useful where the interested ones are taught to pray and are otherwise instructed. At one of these a clerical missionary converses and answers questions as long as there are listeners.

In many places the topics of these meetings are carefully chosen, according to system. Some follow the Sabbath lesson subjects, others the gospels in series, and again others the life of Christ covered once a month. The Blakeslee system is mentioned. A number take the subjects of their lantern slide pictures as topics on week days, showing the views on Sabbath evening. This latter is the plan followed by myself. I try to make the Sabbath a day different from the others, therefore the magic lantern and the bedside talks. It seems that a systematic rotation of topics covering the important gospel truths is a prime necessity for instruction of in-patients.

Probably all hospitals and dispensaries hold a service for out-patients. It generally continues as long as there are patients not examined. Often speakers are changed two or three times in the course of a day where clinics are large. It is a pleasure to state that in some places the foreign physician and other missionaries speak in addition to the native helpers. In our hospital the Bible-woman sits on the women's side, and in the intervals, when the male speaker is resting, she takes up the subject. The men can hear, although not see her. Others make the waiting room a place for personal work. It is here that the Christian Endeavorer and the native brother as well as the helpers have an opportunity. Each forms the center of a little knot of patients, much the same as classes are formed in Sabbath

schools. A babel, but I am not sure that the work cannot be well done on this plan.

How secure the attendance of in-patients at gospel service? They are invited in ninety-four per cent. of hospitals. Attendance is compulsory in five per cent., while three per cent. also hold services in the wards. Nearly every one reports patients as willing to come. The reasons for their coming generally being material curiosity, until they become inquirers. Those who are backward or refuse to come, are seen privately. The hospital evangelist has here an opportunity for good work. One hospital places each ward in charge of a medical student, holding him responsible for the attendance.

It has been suggested that separate meetings be held for Christians and heathen. As far as it is possible to estimate about four per cent. hold special meetings for helpers. But as a rule all are called to the general service. The topics treated necessarily have to be tempered for both classes of hearers. A difficult task at best. The only solution apparent is that of separate mid-week prayer meetings or special prayers with helpers inviting other Christians and inquirers. This plan, it would seem, is a necessity where one has Christian helpers so engaged that they cannot attend regular church service, and where one wishes to create an *esprit de corps* and better prepare his employees to preach the gospel.

How best follow up the in-patient after he leaves the hospital? This question is so perplexing that nearly one-half of medical missions have no plans for this work. Over one-half have plans more or less defined; many confess their methods are defective and inadequate, and only about twenty per cent. make regular provision for visitation. The following queries are primarily important: Is it best to follow up these patients? Do not we simply cast bread upon the waters? Does the patient desire visits from those who follow the foreign religion? Beyond doubt it is the duty of the husbandman to cultivate the soil until the harvest appears. The Holy Spirit will give the increase, but we must do our share in making it possible. It is stated that many patients are converted after returning home. The last question, however, seems to be the *point d'appui* of objection to this visitation. Of course we will not be welcome, and he may not be at home when we call if he does not desire our presence. The solution of this difficulty as presented by several is this: before the patient leaves the hospital always strive to obtain from him an invitation to visit his home. Have a space on the dismissal blank headed "Invited to call" and note yes or no. One should be able to ascertain from his manner the real attitude of the patient, no matter what his answer. In fact, in this attitude may not one make a practical test of the quality of spiritual work done while the patient was in ward?

Having overcome this question of welcome, we may consider measures for visiting or otherwise keeping alive the seed planted. Distance, helpers, time all figure in these plans. Some physicians state that patients are scattered, but medical work is cumulative in effect and time should bring more from their villages. The lack of helpers is a great obstacle. In the absence of better methods native pastors have been written to and neighboring missionaries addressed, asking them to call upon and report patients when found. Letters have been given to patients for pastors near their villages, but few have been delivered. Foreign evangelists in charge of the district where the patient lives, have been asked to become acquainted with him while he is in the hospital and to call upon him at home, but they are often too busy itinerating. Colporteurs of the Bible societies have been enlisted. In addition to these there is the use of the hospital travelling evangelist, either foreign or native. Several hospitals have such a man. This plan seems to round out the medical mission and to conserve the energies put forth. I am sorry that no exact data can be had regarding the work of these evangelists. Nearly all agree, however, that former patients should be followed up and regret the lack of such a helper. It seems certain that could the wishes of the majority be expressed they would join in the plea that the home boards furnish each hospital with an evangelist, whose sole duty it will be to work with patients and, as the work grows, to be sent out visiting those who have left an invitation for him. What has been said applies equally to the Bible-woman.

The item of time above mentioned applies to the physician himself. Possibly he may have opportunity to itinerate and call at the homes of his patients. He undoubtedly would be the most acceptable caller. Several correspondents state that they make a point, at least once a year, of calling upon those manifesting an interest in the gospel. They are often accompanied by a preacher or Bible-woman.

In the letters I have received many physicians, not satisfied with the state of their work (which of us is!), wish to take better advantage of their opportunities. They wish to speak personally to out-patients, or at least to address them, not leaving them entirely in the hands of native helpers. Others wish to keep the in-patients busy studying or otherwise interested, not neglected during a large part of the day. Again others wish the example of their employees to be more Christ-like. Many long for more assistants, both foreign and native, for Christian work. Together with all these desires comes the general regret at want of personal time. Several physicians write that their fellow-missionaries do not appreciate the good opportunities to be found in the hospital wards and at the homes of the patients. In a number of hospitals, however, the clerical missionaries have charge of the evangelistic work. Perhaps our brethren hesitate through fear of

interfering with our work. Let us invite them again and give them much opportunity. Come, fellow-workers, there is a cry from Macedonia. Help us doctors out. We want to teach the gospel truths, but we cannot do much more than preach by our actions while holding our own in the struggle against disease. Our fields are too broad; indeed the harvest is great, but the laborers are few. Here you will not need to go to the heathen, but they come crowding to our doors and are living beneath our roofs.

In conclusion let us remember the following points:—

1. That the native brother may be made useful.
2. That the example of the hospital employees may sow either wheat or tares.
3. That the out-patients ought not to be left entirely in the hands of native helpers.
4. That there are many healed bodies leaving us with unhealed souls.
5. That a special evangelist should be employed in every hospital, with the especial view to his visiting former patients who have invited him.
6. That we should go out into the highways and hedges and compel our clerical brethren to come to the feast spread for them in the hospital wards.

This paper has not been written with the intention of establishing a standard, nor passing judgment on the ideas or practice of any one, but the effort rather has been to present various methods in use to-day in medical missions with the hope that this information may be useful in sowing the precious seed the Master workman has entrusted to us.

SYPHILIS.

E'en from the dawn of history we read
 Thy baleful record on each new turned page :
 Men die, but thou live'st on from age to age,
 Base and most vile of many an evil breed :
 Alas ! too oft thy mission doth succeed,
 Oh curse of man in every clime and race ;
 Alike in youth and age we see thy trace,
 And few of those who fall escape thy greed.

Nations that are no more, have felt thy rod ;
 Thou hast slain more than battles with thy breath ;
 The palace and the hovel thou hast trod ;
 Claimed guiltless with the guilty, as He saith.
 And in it all stands forth the law of God,
 Saying, My Son ! the wage of sin is death.

C. S. F. LINCOLN.

A NOTE ON STRANGULATED HERNIA.

By LEOPOLD G. HILL, M.R.C.S., C. M. S. Hospital, Pakhoi.

The object of this brief communication is to find out whether strangulated hernia is common amongst the Chinese. In this part of China we have a fair number of inguinal scrotal herniæ; perhaps I see on an average one every ten days out of 8,000 patients in a year seen for the first time. But in seven years, out of about 30,000 patients, only twice has a case of strangulated hernia come to the out-patient surgery. It is possible that such a serious disease would not be found amongst the usual run of out-patients in China, and that it may exist at home, the patient's friends not at first realising its gravity, and when they do, for some reason not communicating with the foreign doctor. On the other hand, one does not come across any cases of fæcal fistula in those who may have been fortunate enough to survive. For myself I have long wondered why the Chinese are free from this complication, going about as they mostly do without a truss of any description. Is this rarity of strangulation the experience of my fellow-medical missionaries in various parts of China? If so, what theories are forthcoming to account for it? If several could answer these questions in a letter of a few words in the following number of our JOURNAL I feel sure it would be of interest.

The only theory I can offer is the simple one that the Chinese as a rule are not heavy meat eaters, whereas foreigners in their native land are. There is so little to go upon in two cases, but it is significant that both my patients were pig and ox butchers and therefore presumably they freely eat of the flesh of these animals. It cannot be that the Chinese strain less in lifting heavy weights, for they of all people are the heaviest burden bearers.

A few details of these two cases will conclude my remarks.

In the first patient, seen four years ago, fæcal vomiting had just commenced when he came to the hospital. Operation was consented to by the patient after a judicious attempt at reduction had been made and failed. He was then inverted by raising the end of the bed and placing him on an inclined plane as well. A cold application was put on the rupture and the patient left while preparations were made for the operation. This, however, was not needed, as after an hour the gut slipped back of its own accord whilst the patient was still in the inverted position. Vomiting ceased, he made a complete recovery; refused a radical cure; later was fitted with a truss and returned home. I have not heard of him since.

The second patient (aged fifty-five) came some few weeks ago with the history of having had a right inguinal scrotal hernia for seven years; had never worn a truss and could always reduce the rupture at will. The night

before, however, he could not return it, and it became very painful; vomiting supervened, which, soon after he came to the hospital, became faecal, but not very frequent. The swelling was as large as two fists. The remedies tried successfully in the former patient not proving successful in this and the man and his friends becoming properly anxious, the advantages and risks of an operation were propounded to them. They wisely consented, and in less than twenty-four hours, after the onset of the trouble, the patient was on the operating table. My native dispenser administered *chloroform*, and I was assisted by the French doctor of the port and by my clerical colleague. The gut on exposure was much injected, but not approaching gangrene in any way, and after enlarging the ring I was able to quietly return the intestines into the abdomen. The cæcum and several lengths of the small intestine were involved. The sac was purse-ligatured and stitched up and the wound closed.

The patient made an uninterrupted recovery, in spite of the fact that a good feed of pork was indulged in, unknown to me, on the third day.

PRACTICAL SURGICAL NOTES ON THE PAST YEAR IN ST. LUKE'S, SHANGHAI.

By W. H. JEFFERYS, A M., M.D.

As I look back over the surgery of the past year in St. Luke's my feelings are mixed, partly satisfaction, still more dissatisfaction, yet all hopeful. There is much more that I am dissatisfied with than otherwise. The future holds out for us a new building and completely new surgical outfit and brightest prospects, but I am writing of the past year. In this we have had no operating room at all, no proper sterilizer, no dressing lockers, have had to carry all our patients up and down stairs on stretchers and across streets, have had no decent bathrooms, and altogether have been as uncomfortable and as improperly circumstanced as it is possible to conceive of even if one were to deliberately make one's arrangements with those objects in view. Therefore I have not expected very good results, and yet to some extent have been agreeably disappointed. The results have been fair for the circumstances; poor, had the circumstances been favorable. Throughout the year I have conscientiously refused internal eye operations and laparotomies except when absolutely imperative, because of improper technique, and I shall not take them up regularly until I have something approaching what I want. In this connection I would reiterate my expressions in the JOURNAL of April, 1902, and add emphasis thereto if I can find the words; that we are not in China to see how many Chinese we can cure, but (I am speaking professionally—not with reference to the evangelical side of our work, although in that the principle is the same) to establish scientific medicine

in China, to be medical standards for the Chinese to follow, to establish high ideals and to do all in our power to realize them. It should be nothing whatever to us to run up large scores unless every patient in the list gets the best treatment we can possibly provide for him and as much of it as he needs. My former article was criticized, favourably and otherwise. Dr. Teusler, in Tokio, has the cleanest hospital I have seen in the whole East, and he has proved to my satisfaction what can be done. Yet he is not satisfied and presses on to cleaner and more finished work. He has but thirty beds in his whole hospital and does not hanker after more, but every patient that enters his wards gets the best that scientific medicine in the Far East can give him at this time and, I say, Dr. Teusler is not yet by any means satisfied. It is all well enough to talk of the wonders that can be done is surgery with a penknife, an old toothbrush, and a slop-pail, but personally I feel that these useful articles can do better service in other fields and belong, with the six-months'-complete-course-in-medicine missionary, beyond the sphere of serious-minded physicians is China. It is useless to say that the quality of a man's work must depend on his distance from the coast. Some of the best work in China is done far in the interior. The Chinese who make our assistants are much the same all over China, and they are whatever we make them, and they know and do whatever we teach them. And the pressure of work near the coast is probably quite as great as it is in the interior, perhaps greater, and none of us have any right to do anything but refuse work over and above what we can do thoroughly well. It is always open to us to select the work we can do best. We constantly read reports of those of us who do not hesitate to refuse to do certain operations because "it is inexpedient" to run the risk of failure. How much more right is it to refuse the same because we cannot do them thoroughly well and with due justice to work already in hand. Pardon this digression and recurrence to my "pet aversion—the slim dressing." In this respect I plead guilty of being incorrigible.

Some of our most interesting cases of the year have been in the line of compound fractures.

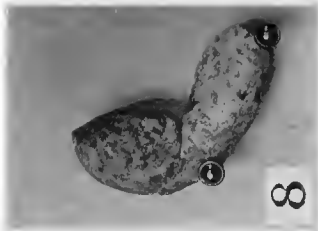
A. Large caliber, leaden bullet entered the left hip, fractured the neck of the femur, passed under the great vessels, emerged, passed through the root of the penis, emerged, entered the internal aspect of the right thigh and lodged near the skin surface on the external aspect. The bullet was easily extracted; found to be flattened and much roughened. It carried several small spicules of bone with it.

Patient was a chronic opium smoker and kept himself drugged throughout his stay in the hospital. Urination was at no time interfered with, though the right side of the penis was largely torn away. Several small pieces of lead sloughed through the scrotum in the course of a couple of weeks.

At first the patient did well and gave hopes of recovery, but suppuration from the hip joint was constant and profuse, and patient was finally allowed to go home in a moribund condition at about the sixth week. At this time the wounds had all healed, except that through which the hip-joint drained. Amputation was not at any time warranted.

B. Large caliber, leaden bullet entered the posterior aspect of the right thigh, splintered the femur about the centre of the shaft and glancing emerged through the external aspect of the thigh at right angles to the line of entrance. In its exit it caused a hernia of part of the vastus externus, and as the case was slow in coming the mass was already half putrid. This herniated muscle was entirely removed and drainage established. The posterior wound closed promptly, and indeed could not readily be kept open. The side wound answered for drainage. Suppuration was not at any time profuse, and the bone, although splintered, did not apparently become infected. Complete recovery with half an inch of shortening took place in less than three months. The patient was a man of splendid physique and took no opium at any time. About the sixth week he developed an enormous appetite and left the hospital in the pink of health.

C. Coolie, aged twenty-four; fell from a height, striking his head and tearing a triangular wound in the scalp over the frontal bones in the middle line. There was œdema of the scalp and face and complete closure of the eyelids and the conjunctivæ were fairly black with suffused blood. On examination it was found that there was an extensive fracture of the frontal bones, compound of course, and about two teaspoonsfuls of brain matter were found in the wound or came through during the first dressing. Crepitus was present and the fracture was easily traceable and in one place exposed to view. The man, however, had been carried straight to the hospital, so that the wound was seen soon after the accident, and for a wonder nothing dirty had touched it, so that I took the probably unwarranted risk of carefully irrigating and then completely closing the wound with catgut sutures in the pericranium and silk in the carefully shaved scalp. Patient stayed conscious after the first few minutes following the accident and complained of nothing but pain at the time of dressing. That evening, on consultation with Dr. Boone, I decided that I had made a mistake in sealing up the wound without drainage, and next morning removed several silk stitches with the idea of putting in drainage. To my surprise I found it positively difficult to effect an entrance through the wound, and so did not open the pericranium, but simply laid a small rubber tube under the scalp. There were no undesirable symptoms at all except slight dizziness. The third morning, as the dressing was dry, the drainage tube was removed. The wound finally closed on the fourth day. At the end of one week the patient could not be kept in bed, and by the fourteenth day refused to stay in the hospital any longer, as he had no



1. Lupus vulgaris, of face and neck. Side.
2. Same. Back.
3. Avulsion of nose with compound fracture of upper jaw.
4. Sarcoma of the nose and cervical glands.
5. Sub-lingual cyste.
6. Syphilis of nose and mouth.
7. Hydrocephalus. Front.
8. Bladder and urethral stones.

symptoms, and the external wounds were absolutely healed, and he "wanted to go back to work." He would not listen to arguments which he maintained were not practical. So he went out apparently in perfect health, and I trust is so still. Of course the most morbidly careful asepsis was practised in this case, but the outcome was certainly more than unusually satisfactory.

D. Two cases of compound fracture of the lower end of the tibia.—
a. The anterior tibial artery was divided and bled furiously from both ends. Drainage was directly up and as unfavorable as possible, especially in view of the impaired nutrition. In spite of these facts the wound slowly closed and good union took place in the course of seven weeks. *b.* The fibula too was here fractured, but the wound led to the tibia as in *a.* Drainage was also up, but as the discharges were profuse I had to open below also and made good drainage through. The ankle joint never became involved, but the tibia necrosed and suppurated for about three months. The patient was averse to an amputation, and so I was persuaded to delay too long. Finally I set a time limit going by the general condition of the patient as a guide, but the limit was too long, as was shown by a sudden rise of temperature, followed by cough and spitting of blood and pus, demonstrating metastatic abscess in the lungs. Patient rapidly succumbed. It was an accident, but on looking back I feel that better judgment would have been shown by earlier amputation. It is such poor surgery, however, to amputate that one is perhaps justified in making this mistake once in a long while.

Photo No. 3 illustrates a compound fracture of the upper jaw with almost complete avulsion of the nose. Good final result, except for permanent bony closure of the lacrymal canal on the left side. Patient refused operation for its relief. This patient was struck in the face by an iron bar and the maxilla driven backward. The final result showed some flattening of the face on the left side and a bending outward of the zygoma.

The list of "Extraordinary Cases" for the year has not been very great. Photo No. 8 perhaps illustrates the most striking. A man presented himself with great œdema of the scrotum. If I remember rightly a soft catheter was easily passed and clear urine withdrawn. At any rate there was no obstruction to urination. Multiple puncture was performed, but a large moist gangrenous spot developed in the dependent portion of the scrotum. This was laid open and drained freely. The size of the scrotum gradually became less, as did the tension. During my absence in Japan the urethra became occluded, and Dr. Duncan Reid, on examination, discovered a stone at the neck of the bladder. Perineal section was performed and two large phosphatic stones removed, that No. 8 (A.) lay at the neck of the bladder and that (B) in the prostatic urethra. (Weights, each two ounces.) A smooth facet marked the surface of apposition and indicated a sort of moveable joint. The urine must have slipped around the stones up to this time and so failed to

reveal their presence, and at the time of establishing free drainage the scrotum and perineum were so enormously enlarged as to mask even the presence of so large a urethral stone. The patient made a slow but satisfactory recovery, and was discharged with a small perineal fistula which promised to close of its own accord.

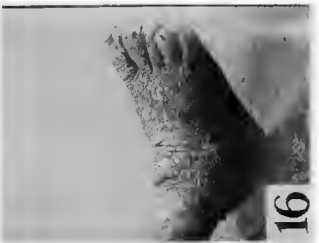
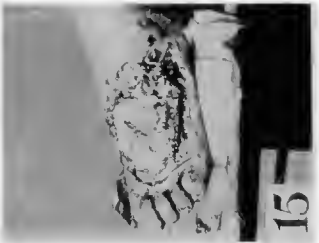
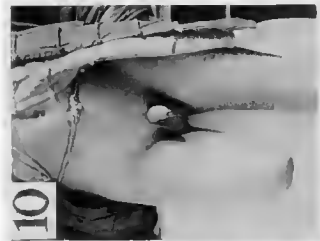
Nos. 1 and 2 illustrate very well the extent to which *lupus vulgaris* can exhibit contractions. The ear was entirely flattened out and its internal aspect obliterated.

No. 4. Sarcoma of the nose with metastasis to the cervical glands on both sides was thoroughly removed by Dr. Reid and myself, and there was no return at the time the patient was discharged, although the growth had been a rapid one. Patient was told to return for a plastic operation, but failed to do so. It is not likely that the cure proved permanent, but it may have done so. At any rate the relief following operation fully warranted its performance, as the nose had become entirely occluded. After operation the patient was able to breath with ease and comfort.

No. 5. Sublingual cyst.—A rather large one. Treatment consisted of incision in the mouth and gauze drainage and the formation of a fistula which kept the cyst empty and gave satisfaction. A more or less complete dissection might have been made, but the simpler operation was deemed more suitable.

No. 6. Syphilis of the nose and mouth.—Patient came in with nose occluded, except for a small hole in which he wore a tiny silver tube of his own devising. The mouth was much contracted and very much ulcerated, as shown in the photo taken at this time. Mixed treatment was instituted and all active ulceration disappeared, but the contraction of the mouth progressed till only liquid food could be taken, and that through a tube. Patient refused operation and disappeared for a season. Finally he was driven by further contractions to return and submit to operation on the mouth. There was by this time a return of the ulceration, but as patient was almost starving I had to operate, in spite of the unfavorable prospect. A large opening, which never deserved the name of mouth, was made; but although mixed treatment was pushed to the utmost the ulcerative process got in its bad work and left the patient aught but a thing of beauty. Operation on the nose was flatly refused, and the patient was apparently delighted with the result and expressed not the slightest concern for his lost beauty, being entirely satisfied with the fact that he could eat a square meal and return to his business. I believe that I have never yet met a human being who placed money getting more supremely above every other worldly consideration than did this human plutophile.

No. 7. Hydrocephalus is not attractive in any race. This patient had one of the saddest faces I have ever seen on a child. We were not able to afford the patient any relief.



9. Chronic tuberculosis of foot and leg.
10. Same, two months after amputation.
11. Elephantiasis of legs. Side.
12. Same. Front.

13. Fibro-myoma of back.
14. Gangrene of extensor surface of leg.
15. Gangrene of dorsum of foot.
16. Veruca filiformis. Modified.

No. 9. Chronic tuberculosis of the skin and subcutaneous tissues of the leg of about five years' standing. Responded superficially to local treatment or appeared to do so—This was but a healing over of the eczematous integument, and was deceptive. An attempt at currettement revealed the hopelessness of cure, and amputation, although it was necessary to go above the knee to remove all disease, was finally welcomed. There were also suppurating glands in the neck. The patient seemed to lose ground from day to day until amputation was performed, but from that day fairly bounded into good health. A modified circular at the middle of the thigh was performed. There was no pain after the first day and primary union took place, no dressing except for protection being required after the eighth day. This was the third in a series of four amputations, two at the middle of the thigh and two Farrabeuf amputations at the point of election in the leg, which closed by first intention and without reaction or complication in my wards. This, I mention, to emphasize the absurdity of one of the answers made to my article above alluded to, in which the respondent implied that sterile operations were not for China and that he had never yet done a sterile amputation. Most of us well know from experience that sterile operations are constantly attained to in China and it is simply a matter of time and care. Good stumps too are possible, as the picture of the same case shows.—No. 10.

No. 11. Elephantiasis in a woman. A common sight in Shanghai.—The patient made no complaint except of the large ulcer on the dorsal aspect. The deep groove at the ankle revealed the original size of the limb and in it was the only natural skin below the knee joint. No. 12 shows the side view of the same pair of legs. The case was of twenty years or more standing.

No. 13. Fibro-myoma of the back. Pedunculated and completely raw on the exposed surface. One of the foulest smelling things I ever encountered.—In this as in every similar case I retained the patient some time in the wards till as clean and healthy a condition as possible was attained before operating, and the results of this cleaning process were, as always, warranted by time saved in the healing of a clean operation wound instead of one exposed to ulcerative discharges. (See "castration" below.) The tumor was of course easily removed and two weeks after operation the patient was discharged so fat and hearty that he was scarcely recognizable as the same individual.

No. 14. Gangrene of the entire extensor surface of the leg.—Not diabetic, though in local manifestations very similar to that condition. The entire extensor group of muscles sloughed out in one mass as shown in the photograph. Patient desired amputation on account of the great pain suffered. This I refused, as there was no sign of limitation and little prospect of union of flaps. Patient left the hospital "to commit suicide." *Morphia* gave little relief of pain in this case. Treatment while in the ward was *stimulant* and *tonic*.

Nutritious food was forced and *nitroglycerin* kept going. I was much interested in the case and regret to be unable to record its outcome.

No. 15. Patient presented himself with extensive cellulitis of the dorsum of the foot. Refused incision, and so was discharged without treatment. Some five days later returned ready for anything. He had been to a native Si-sang and found him a broken reed. The entire dorsum of the foot was a black slough and readily peeled off, leaving the tendons exposed, but the remaining ulcer was not unhealthy. The condition would probably eventually have healed itself, up to a certain point at least. After the ulcer filled up to the level of the skin and become manageable I planted twenty six skin grafts on it, and twenty-four of them took root, rapidly covering the whole surface and showing the perfect condition of the surface for the operation.

The success of skin grafting is largely a matter of careful preparation of the surface to be covered and care against meddling surgery after the operation. Careful asepsis, not antiseptis, is a *sine qua non*.

No. 16. I have seen this condition three times in China. Once in this case, as an apparent result of long standing eczema, once in the case of elephantiasis illustrated above and once, if I remember rightly, in a case of old varicose ulceration of the leg. It consists of a filiform warty condition of the skin; in this case also nodular in parts. Each wart stands from an eighth to half an inch above the surface and is distinct from those which stand closely packed about it. It is perhaps the condition described in Dr. Hyde's book as "*Veruca Filiformis*," or a modification thereof. In each case it was on the leg; was associated with impaired circulating in the limb and was a matter of years. It is in itself painless, and in my hands has been absolutely resistant to treatment, though I have not been able to test it in the wards. It is dry, except in the eczematous patient when it shares the general weeping condition of the rest of the leg.

I have seen this year two cases of lichen planus, one case of xanthoma tuberosum, and one case of erythema nodosum (?).

I have spoken in No. 13 of delaying operation when possible in order to cleanse and prepare ulcerated surfaces before undertaking their extirpation. I wish I could sufficiently emphasize both the desirability and duty of doing so, not only as a time saver in the end but as a life saver as well. One never knows what one is really going to find in an operation, nor where one is going to end. I have had three castrations this year for herniated testicle. My rule is to put the patient to bed and for a week, or as long as is necessary, to have the part daily cleansed and rendered as healthy and clean as possible before operation, and then at the time to so protect the wound from the old ulcerated surface as to, if possible, prevent infection. In the first two cases the castration was as simple as could be and without complication. In the last, in which the testicle had been a particularly dirty one

and had been especially carefully prepared, I sailed in without any misgivings whatever to find myself in the centre of a patulous tunica vaginalis and with my fingers in contact with the bowels. There had been no previous history or sign of hernia and yet had there been any carelessness in the preparation of the patient or of the operating hands or if the patient had been operated upon promptly on admission to the hospital he would, without doubt, have become the victim of a peritonitis of operative origin. But this patient did not have any such misfortune. The sack was easily tied off and the patient made a good recovery. It is by no means in these cases simply a question of preparation of the patient on the morning of operation but also and of equal importance the careful nursing of the parts into condition for operation.

I have finally to report a death in my wards probably from *chloroform*. The case is one that I feel regretful about for, though I have no ground for blaming myself for any carelessness, and knew what I was doing, yet I operated upon this man with hesitation which I now feel should perhaps have gone to the point of either refusal or operation with local anæsthesia. The patient was a man of about twenty years of age, rather delicate in appearance and said he was not very well. He came with the complaint that he was constantly subject to seminal emissions, eight or more times daily and especially provoked by walking. His mind was in a much disturbed state about it and he begged for relief and was ready for anything. Examination revealed a long, tight, and slightly inflamed prepuce. There was no other indication of irritation, and I decided on circumcision. He was admitted to the wards, and before operation, according to our rule, I examined his heart and lungs carefully and found a slight systolic murmur heard best at the apex. Patient said that at times he was rather short of breath. We weighed the question carefully—my assistant, Dr. Tyau, and I—and decided for operation with general anæsthesia, thinking that the operation was necessary and that the patient was mentally unsuited for an operation with local anæsthesia. *Chloroform* was given to semi-unconsciousness and then *ether*, and the operation was hurried along, being easy, and the wound remaining in perfect condition up to the time of the patient's death. Reaction from the anæsthetic was prompt and normal, nor were there any untoward symptoms for thirty-six hours following operation. Patient was bright and comfortable. On the evening of the second day patient complained of shortness of breath, and heart action was found to be poor. Steadily from that time on the patient went through the stages of heart failure, resisting all stimulation until death ensued about eighteen hours later. I have talked over this case with several physicians and one or two expressed doubt as to the responsibility of the *chloroform* for the outcome; but personally I am inclined to believe otherwise. My feeling is that the operation was

indicated, in spite of the heart weakness. Dr. Hare says in his "Therapeutics," last edition, article on *chloroform*: "In the presence of valvular disease of the heart *chloroform* may be used with caution, although *ether* is preferable. Given a case of valvular disease that must be subjected to operation the chances are bettered with an anæsthetic than without it, as the pain and mental shock are worse for the heart than is the anæsthetic."

"PHRASES USED BY OUR PATIENTS TO EXPRESS THEIR
SYMPTOMS,"—THE SHANGHAI OF IT.

By Dr. E. S. TAYLOR, Shanghai.

In perusing Dr. Davenport's suggestive article in the last issue on "Phrases used by our patients to express their symptoms," I was interested to notice the similarity and dissimilarity of symptomatic expressions described by our patients in Shanghai. Thinking it would be worth while and of special interest to readers, I resolved to draw a concise comparison. I do not mean to compare phrase by phrase, but simply deal with what is comparable and simultaneously adding what is useful, omitting what is unnecessary. My object in so doing, however, is not one of criticism by any means, nor of display of learning in the least, but purely that of interest and practical help to students of the Chinese language.

I will follow Dr. Davenport's classification, commencing with the lungs. In Shanghai the phrase used to express fulness of air in the chest with distress of tension is, be the cause what it may, 胸前板緊氣. We meet this condition in congestion of lungs. The expression that naturally follows is 透氣勿轉, signifying the interference with the normally free circulation of air through the respiratory organs.

The state of suffocation is frequently expressed by the phrase 悶得極 and dyspnœa by the term 勞.

Passing cursorily to the symptomatic expression of gastric derangement we find phrases prone to mislead, unless the terms used are thoroughly familiar, because of the Chinese ignorance of anatomy. For instance, what is the significance of the phrase 心口痛 and 心裏脹? Foreigners of no wide scope of Chinese language would jump at the conclusion that the symptoms thus expressed, must concern the heart. But far from it. 心口 and 胸口 are synonymous terms for epigastric region. Literally, the former means the mouth of the heart, the latter the mouth of chest.

To express epigastric pain from upset stomach, etc., the phrase used is 心口痛. Fulness with distress of distension in gastric region is expressed by the phrase 心口脹.

The expression 膈食, which apparently puzzled Dr. Davenport, means down here obstruction in the bowel to the passage of food with consequent perverted peristalsis; the stomach rejecting everything ingested. This is really a symptom, rather than a disease, such as one finds in the latter stage of strangulated hernia and hyperemesis of pregnancy. From the Chinese point of view, it is a very serious indication. Hence the common expression 瘋癆 臌脹 疾病難醫, meaning respectively paralysis, consumption, dropsy, blockage to the passage of food, are diseases difficult to remedy. 血塊, meaning literally a blood lump, is used in Shanghai to express localized collection of blood. Once a patient came to our clinic complaining of having a 血塊 and indicating its site in the abdomen. On physical examination I found the swelling was nothing but a good-sized aneurism of the abdominal aorta. One of the curious expression also often used is 肝氣, meaning liver gas. As far as I know, it is applied to a slight form of atonic dyspepsia with symptoms of fullness after food and eructation of gas and sour liquid. Generally, regular doses of *nux* and *soda bicarb* are sufficient to effect a cure.

Proceeding to the lower part of the alimentary canal we find the term 火 or 熱, heat or fever, as being the element of constipation and feverish condition. In case of fever with symptoms of constipation, headache, slight conjunctivitis and dry furred tongue, the phrase 火氣朝上, meaning the heat ascends, is used. The common expression in Shanghai dialect for bowel movement is 大解, meaning great relief, and that for micturation is 小解, the small relief. When there is added the character 發熱, 大解發熱 then the meaning is altered to indicate constipation. For all these conditions we are frequently asked for 卸火藥, medicine for dispelling the heat, which is nothing but a dose of saline purgative.

Phrases used for dysentery are: 刮積瀉 or 瀉紅; the former signifying scraping and dragging diarrhoea; the latter bloody flux.

Coming to the more general symptoms we often hear patients complaining of being 虛, a term commonly used to express debility and run down condition. When fever is present in such patients the phrase 虛熱, asthenic fever, is used. Anæmic oedema is expressed by the phrase 虛腫.

Another broad term so often met with in warm summer is 痧, which is so ambiguous in its meaning as to baffle every description. As far as my present knowledge can make out I think it means internal congestion of some organ from failing heart or some other causes. Cholera is considered to be one of such conditions. In the second stage of cholera, when the victim's hands, owing to great drain of serum, resemble those of a washer woman, being shrivelled, the condition is expressed by the phrase 癰螺痧. And when severe cramps seize the muscles of the calves of the leg, occasioning contraction of the

limbs, then the expression 吊脚痧 is used. There are many more similar phrases in this connection, but to mention them all would encroach too much upon this brief article.

Some express the dilapidated condition with loss of flesh with clay-colored skin by the appropriate phrase 乾薑癯瘠, meaning the appearance of dry ginger and shrivelled dates.

Numbness is conveyed by the expression 木覺, meaning insensible as wood. The general expression for discomfort and uneasiness is 難過, signifying literally difficult to pass. A number of people, more especially those in their prime of life, worry a great deal about spermatorrhœa which they express by the phrase 走陽, meaning approximately the loss of the vital substance of the male.

The foregoing are a few phrases commonly used by our patients to express their symptoms.

Since China has such a great diversity of tongues, the writer sincerely hopes that the above may be of practical aid to practitioners who are in close touch with the Chinese and that more articles of like nature from different parts of this Celestial Empire will appear in the JOURNAL.

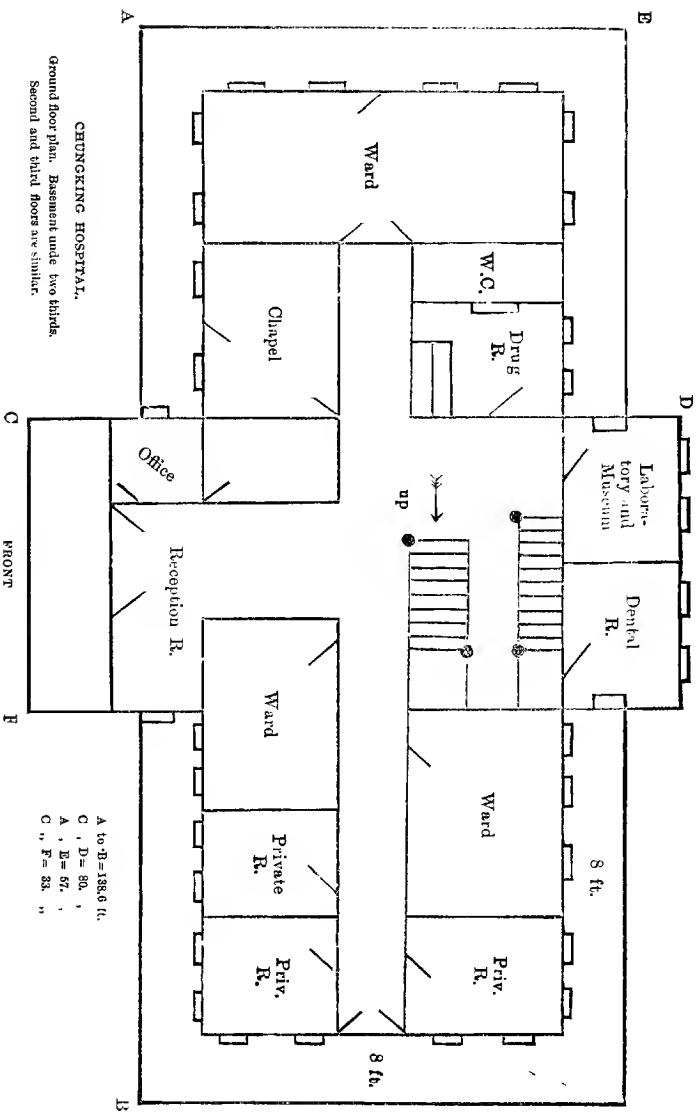


THE NEW METHODIST EPISCOPAL HOSPITAL FOR MEN, CHUNGKING.

By J. H. MCCARTNEY, M.D.

The new building which had been in progress of construction for over one year was dedicated on the 9th day of July last. It is located upon the sight of the old hospital which was removed to make room for it. The location is all that can be desired from every standpoint. It is near the very centre of this most densely populated city, but on the other hand, it is quite isolated and separated from the native city, being located in an extensive bend in the city wall, which extends out and away from the city. It is situated on next to the highest plot of ground (the highest being occupied by a temple) within the city, overlooking the Kia-ling river, which flows over 200 feet below. Its position insures fresh air and breezes at all times from off the river below. The building is cross-shaped, built of grey bricks and grey sand stone trimmings. The main building is four stories high, with two wings; one wing, which includes a basement, is four stories, the other is three stories.

The length through the central corridor to the outside of each verandah is 136 feet and the width of each wing fifty-five feet with an eight-foot verandah on three sides of each wing. Ten-foot corridors run the entire length of the



building, three in all, which center in the thirty by thirty-five ventilating shaft in the centre. This shaft extends from the basement to the roof through the four stories and is topped by a sky-light, which can be opened or closed. The main stair-case is built in easy ascent around this shaft, and consists of seven flights of stairs with a ten by ten feet landing for each. The doors, windows, and floors are built of "ba-mu," which is harder than pine and lighter in color than oak, with the exception of the fourth floor, which is made of pine.

It is finished in oil and native "kwang-iu" or varnish.

Each floor is connected with speaking tubes, which have been found a great convenience. The food and water is carried from the basement to each floor in an elevator. Gongs on each floor take the place of electric call-bells. The basement contains kitchen, store room, dining room, wash house, shower bath room, laundry room, gymnasium, strong room, and morgue.

The second floor has three medical wards, three private rooms, reception room, office, chapel, two bath rooms, drug room, laboratory and museum, and dental room.

The third floor contains three surgical wards, eye ward, three private rooms for foreign patients, two private rooms for Chinese patients, sterilizing room, dressing and anesthetic room, operating room, two bath rooms, and lecture room for medical students.

The fourth floor has one large ward, two bath rooms, linen closet, dark room, two private rooms, four rooms for nurses, and contagious ward half story higher than the others.

The day of the opening was anything but a pleasant day, as it rained incessantly from early morning until the close of the exercises, about 3 p. m. Between five and six hundred invitations had been issued to the officials, merchants, and foreigners residing in the port. All the high officials, with one exception, were present and manifested a great interest in all they saw. Many of them stayed to a late hour, viewing the premises and asking many questions about all they saw.

We are hoping for a much larger subscription in aid of the work from these people in the future than in the past.

We trust that our Heavenly Father may largely use this institution in the salvation of the people for whom it was erected.

SOME GENERAL PRINCIPLES IN THE MEDICAL TREATMENT
OF CHINESE.

DEAR DOCTOR: You asked me to send you five or six formulæ which I have found specially applicable to Chinese, with a word or two on the use of each. I am not very partial to the use of any formula and have no special favourites.

There are certain broad general principles which it is well to bear in mind when treating the Chinese.

For instance, in Shanghai a very large number of the men who apply for treatment have had syphilis, and this has to be considered in treating their cases, e.g., some fractures will not unite properly until the patient is put on a course of treatment for constitutional syphilis.

A great number of my patients are opium smokers; this has to be considered when treating their complaints. A man will usually deny that he smokes opium if he is asked the direct question. Converse with him for a while and then ask "how much opium do you smoke in a day?" He is off his guard and he will tell you just how much he does smoke.

This is a region where malarial fevers prevail. The natives are more or less saturated with malaria. Many of these patients have no marked fever. They are in a state of acquired tolerance of the malarial toxin. They are, however, malarial cachectics, and this has a powerful influence on the course and the effects of any disease which they may acquire.

Owing to the coarse, bulky, and oily nature of their food, most Chinese are sufferers from chronic dyspepsia. All these things have to be borne in mind when we are treating Chinese patients.

With regard to special diseases, the treatment, bearing in mind the above complications, is much on the same lines as in the home lands. Every case has its own special peculiarities, so that no hard and fast lines can be laid down for treatment.

The results, where our patients are treated in the hospitals, and where we can control their diet and actions, are quite satisfactory.

It is far different when we have to treat Chinese patients in their own homes. In this case the patient will take our medicines if he likes them. He may at one and the same time be taking our medicine, that of some native practitioner, and also the nostrums of two or three friends who have given him domestic remedies. He will eat everything that is suggested to him, will go out in bad weather, or at night. In short he seems to have made up his mind to act in defiance of all your rules and regulations. Our results in such cases are in proportion to the intelligence of the patients.

I am, yours sincerely,

H. W. BOONE, M.D.

Medical and Surgical Progress.

Surgical.

Under the charge of J. PRESTON MAXWELL, M.B., B.S., F.R.C.S.

DUODENAL ULCER.

Cases of acute perforating duodenal ulcer are not numerous, and when they do occur very often die undiagnosed. For this reason the records of such cases are always full of interest. In the *British Medical Journal* for January 10th, 1903, there is an account by Power of four cases operated upon by him. Three of these patients died, thus showing the fatal nature of this trouble, even when submitted to operation. Amongst the points emphasized are the following:—

(1). Duodenal ulcers occur more often in men than in women. (2). The extravasated fluid trickles into the iliac fossæ, and causes a local peritonitis which may be mistaken for an acute appendicitis. (3). The transparent or bilestained succus entericus found in the peritoneal cavity is diagnostic of a perforated duodenal ulcer. It is quite different from the gastric contents escaping at a perforated ulcer of the stomach. (4). The prognosis of a duodenal ulcer is worse than that of a perforated gastric ulcer on account of the greater difficulty in closing it satisfactorily. (5). The prognosis should not be too sanguine until after the lapse of the eighth day, and it is always bad, however well the patient may appear, if the pulse-rate continues rapid. The pulse is a much better guide than the temperature. (6). Free drainage is imperative, both iliac fossæ, the recto-vesical pouch, and the space below the liver more particularly need tubes. It is better that the patient should recover with a scarred belly than that he should die with an abdomen full of pus. (7). The feeding of the patient is a matter of great importance. Small quantities

of food should be given frequently, and if the patient feels sick the amount must be reduced at once. It is better to give nutrient enemata for some days after the operation than to administer food by the mouth.

STOMACH CONCRETIONS.

These are of comparatively rare occurrence and large ones are still rarer. The commonest are made of hair or fur. True gastroliths are extremely rare, and usually consist of shellac introduced into the stomach in the form of varnish. Lunatics of course swallow anything or everything from nails to cocoanut fibre.

All varieties of stomach symptoms may be caused by their presence, and death from perforation has occurred more than once. As a rule there is dilatation of the stomach with or without ulceration, and their presence may set up an inflammatory process which results in adhesions binding the stomach to other organs or to the parietes. Occasionally the irritation is sufficient to set up the growth of papillomata.

If the foreign body is large, vomiting, anemia, and emaciation are common. The previous history of the patient may help in diagnosis, and the tumour may be palpable in the hypochondriac or epigastric regions.

If small they have been removed by the administration of an emetic, but if large and in any case in which the former treatment fails, they should be removed by gastrotomy.

A full and interesting account of these stomach concretions will be found by Fenwick in the *British Medical Journal* for November 29th, 1902.

ROUXE'S OPERATION FOR THE RADICAL CURE OF FEMALE HERNIA.

Renton* has lately drawn attention to this operation, which he thinks satisfactory for the cure of the trouble in question. He gives the following directions for the performance of the operation:—

First, an incision is made over the crural canal, the sac isolated, tied

* *British Medical Journal*, December 27th, 1902.

with catgut and removed. Second, a metal staple is passed obliquely through Poupart's ligament over the crural canal; taking care of the femoral vein, lest this meet with injury, and then gently hammered into the pubis. The skin incision is now closed, the staple remaining permanently in its place, and giving no subsequent trouble.

Renton gives illustrations of this simple process, which if it on further trial proves a success may supersede some of the present methods.

Dermatology.

Under the charge of KATH C. WOODHULL, M.D.

Empyroform, a dry and almost odorless tar preparation. By Dr. Bruno Sklarek. (From Professor Neissor's Dermatological Clinic of Breslau University)

Practitioners are well aware of the fact that tar, besides its efficacy in psoriasis, the various forms of lichen and the pruriginous dermatoses in general, is the most valuable remedy we have in eczema. Yet its proper employment is often a matter of difficulty, for the drug is hard to handle and may do harm as well as good.

Its power of reducing hyperemia and inflammation, relieving itching and promoting normal keratinization, render its use in the latter and more chronic stages of aneczematous dermatitis essential; yet our laboriously attained results are but too often nullified by its too early or too concentrated employment. The most experienced of us have had a disappearing eczema revived into new life by this error.

Subsidiary but also important difficulties in the employment of tar are its black color and an odor which is very objectionable to many persons.

These considerations have for years led to persistent attempts to find a drug to take its place. My own efforts have been directed towards the employment of a condensation product of tar and formaldehyde,

prepared by the Shering Chemical Factory of Berlin and put on the market under the name of *empyroform*. In 1899 and 1900 Professor Nicolier used it in a number of eczema cases at the Royal Medical University Clinic at Gottengen, with very favorable results.

In Professor Neissor's clinic we have used the new preparation in over one hundred cases of skin diseases of the most varied kinds. Most of these I treated personally; and with few exceptions I had abundant opportunity to observe them. My efforts were directed to ascertain the relationship of *empyroform* to tar in its therapeutic action and to find out whether it had similar properties to the older preparation or advantages over it.

Empyroform is a dry, non-hydroscopic, brownish powder, with a peculiar weak odor in no way resembling tar. It readily gives off formaldehyde when heated. It is insoluble in water, but dissolves in acetone and the caustic alkalis, and still more readily in chloroform. Its color and weak odor give it some prima facie advantages over tar. *Empyroform-zinc* paste is gray, while a tar-zinc paste of equal strength is black. The absence of marked odor rendered the preparation especially acceptable to all the patients.

In powder form, either pure or mixed with *zinc* or *amylum*, *empyiform* was used almost exclusively in moist eczemas; and of course, like every other powder, only in conjunction with a salve muslin to prevent injury to the skin when renewing the application. We found the dressing very useful in these cases; but a mixture of *empyiform* in a salve or *zinc* paste was generally more convenient and efficacious.

We used a one, five, ten, and twenty per cent. *empyiform-vaseline*, a ten to twenty per cent. *empyiform-lead-vaseline* (*ung. vaselin-plumbic kaposi*), and a five, ten, and twenty per cent. *empyiform-zinc* paste; and also without the *zinc* as a twenty-five per cent. *empyiform* paste [*empyiform, amylum, ana* twenty five grams, (one and half ounces)]. With equal parts *vaseline* it gives a fifty per cent. *empyiform* paste, in which the odor of the drug is of course a little more marked, but by no means unpleasant.

In consequence of its dessicating properties, *empyiform* is very useful in suspension, and can be added in varying amounts to the base mixtures usually employed for that purpose (*zinc-oxide, talc. venet., glycerin, aq. dest., ana p.e.*) It dessicates very rapidly, however, and should not be used in too large amounts at one time. A good formula is the following:—

R. *Empyiform* 1-2 ounce.
Talc. venet.
Glycerin ana 31-2 drams.
Aqua dest. 5 drams.

Or instead of the last:

Spirit vini and *aq. dest.* ana 2½ drams.
M. Paint. To be well shaken before applying.

These suspensions have proved very valuable; the patients liking them better than the ointments. They are especially appropriate for persons with an idiosyncrasy for fats. As with all similar preparations they are useful only when there is not much exudation present, either in the early erythematous stage of eczema, or later when dessication and sealing have already set in.

The new remedy can be used in the form of tincture or varnish very advantageously; its color is dark then, but it is almost odorless. I found that a simple solution in *chloroform* in the proportion of one and three was too brittle and did not adhere sufficiently to the skin. I therefore used the following tincture, which has not this disadvantage:—

R. *Empyiform* 1½ to 2½ drams.
Chloroform
Tinct. benz. ana ad 1½ ounces.
M. Sig. Paint.

I have employed the varnish and the tincture in the first stage of eczema, and have gotten especially good results with them. I have seen an acute vesicular eruption of the arms cut short with two applications of the varnish. The occlusion and compression may have had something to do with it; but good results may be expected in these cases, as well as in other vesicular eruptions, such as *zoster*, etc.

In the squamous stage of the eczematous disease the chronic infiltration can be relieved by painting the affected parts with the *empyiform* tincture, followed by the application of the five to ten per cent. *sallycyllic-soap* plaster of Beisendorf.

In spite of our great reluctance to employ *tar* in the exudative stage of eczema, I have used the new preparation as a five to ten per cent. *empyiform-zinc* paste and as a ten to twenty per cent. tincture in these cases and have found it very useful indeed. This is contrary to our experience with the older *tar* preparations, as laid down in all the authoritative text-books.

It must be remembered, however, that the employment of *empyiform* is very grateful to the patient, and that all our cases praised the antipruginous properties of the remedy. In cases where symmetrical portions of the body were affected, as both arms, I usually treated one side with *empyiform* and the other with some

other remedy of acknowledged power, as *tumeol* for instance. I have been able to convince myself not only that repair took place at least as rapidly under the new as under the old method, but also that the itching was very much less on the side that was treated with *empyroform*.

Another factor that must not be forgotten is the dessicating property of *empyroform*.

Irritive symptoms were occasionally seen when we first began to use the remedy; the specimens sent us at that time from the factory being imperfectly powdered and containing large particles. Now that the pulverization is perfect, they never occur, no matter to what part of the body the drug is applied. I have applied it very extensively to various parts of the body without any preliminary experimentation to see how the patient would stand it.

In acne and folliculitis, *empyroform* seems to be contraindicated; and in one case of the kind I have seen a true *tar* acne develop under its use.

I have never observed any symptoms of intoxication, fever, nausea, vomiting, diarrhea with the evacuation of black faecal masses, abdominal pains or cramps, or discolored urine, from its employment. And this although I have used it in extensive and even in universal eczemas, and once even in a patient suffering from nephritis.

Finally, one especial advantage of *empyroform* remains to be noted. It can render individuals who cannot stand *tar* at all capable of using the

drug. The ideal eczema treatment is the *tar* treatment. It is a very great advantage to have a remedy in *empyroform* to help us even in cases that are most recalcitrant and susceptible to the *tar*. I have used it repeatedly in cases of the kind and have only good results to report. Patients who could not stand *tar* in any form, in whom its most cautious applications caused irritation and new attacks of the eczematous disease, have become so accustomed to the drug through the *empyroform* treatment that they were not only able to use a weak *tar*-zinc paste, but even stand the *tar* tincture without any trouble, and so were finally led to a definitive cure.

I have also used *empyroform* in various other affections, such as psoriasis, prurigo, trichophytosis, etc., but have had no especially good results.

The advantages of the new drug are probably due to the combination of *formaldehyde* with the *tar*. To recapitulate them, the first are its great antipruritic and dessicating qualities. Then it causes neither local reaction nor systemic intoxication. Further, with its help patients can be gradually accustomed to the use of *tar*. It is almost odorless. The lesser intensity of its color is a property whose value must not be underestimated; it is a more cleanly dressing, and does not soil the bed and body linen as *tar* does.

All these things give it the right of introduction in the field of dermatotherapy — *The Southern Practitioner*, September, 1903.

The China Medical Missionary Journal.

VOL. XVIII.

JANUARY, 1904.

No. 1.

Editorial.

A HAPPY NEW YEAR TO ALL.

God bless us in our life and work and, pardoning the impatience and the imperfections of past days, turn our eyes in faith to the future with its responsibilities and problems, its promise and its hope. We have lost from our number some whom we fain would have kept, whose work has seemed to us so good and whom we, in our battle, thought so necessary, and the old year closes with the heart-breaking news of the death of the beloved Bishop of Hankow. But week by week we meet those who are coming out to fill, as they may, the places of those who have been called to higher work, and in the faces of these we read the promise of a great future for mission work in China. Strong they are in body, while many of us are not as we used to be, and filled with hope and determination and with theories too which, though sure to be discarded or modified in the face of fact and practice, are yet the evidence of minds trained to thought and eager for service, the evidence that the Church at home is choosing wisely and means to give of her best.

Let us take for our aim in the year to come *quality* not quantity, *thoroughness* not superficiality! If we see but ten patients this year let us give them of our best and plenty of it! If we perform but one operation, let us not have pus! If we make but one Christian, let him be made for all time. If there were one Chinese Christian of such a type as Bishop Ingle, for every ten Christian missionaries in China, and no others, the future Christianity of China would be assured. Let the seed we sow be *the good seed*, and in due time the earth will bring forth her increase, and God shall bless us, and all the ends of the world shall fear Him.

TO THE MEN BEHIND THE GUNS.

In entering upon the second year as editors of the MEDICAL MISSIONARY JOURNAL it is only natural that we should consider for a moment what we are doing or trying to do for the cause of medicine and surgery in this country.

The advantages of a good medical journal are too well recognized to admit of discussion. The vital question is how is such a journal to be maintained?

There are some features in the retro-intro-pro-spective view of medical journalism which are both consoling and encouraging, while others fill our souls with doubt and apprehension. In the first place it is a matter of encouragement to us that we have been able to keep the JOURNAL alive another year. Had it not been for the vitality of that most estimable organization—the Central China Medical Missionary Association—the JOURNAL would have been very much out of it.

There seems to be a wrong impression in many directions as to the number of men necessary to conduct a successful journal. Among the majority of the profession in China it seems to be *two*. While the members of the aforesaid medical society and the editors of departments in Medical, Dermatological, and Surgical Progress have been faithful to their trust, the rank and file of the men behind the guns have ceased firing, at least in our direction. Even a little wholesome abuse would be more acceptable than such conspicuous neglect. It would at least give us something to talk about and talk back whether we said anything or not.

There are many men in the profession here in China of ripe experience and long service. Most of them, we grant, are men who are bearing heavy burdens of administration and active practice, and yet if they would but snatch a few minutes from their busy lives to write us a report of interesting cases, or a few words of encouragement or advice, how acceptable it would be only the noble army of past Editors knows.

The actual articles contributed during the past year were twenty-four, not including Medical and Surgical Progress, Editorials, Correspondence, or Reviews, and from twelve cities. All thanks to the men and women who have stood by us and remembered the JOURNAL groaning under its weight of young blood and coagulated old blood.

We unite our cry with our fellow-Macedonians from the first to the twentieth centuries inclusive,—"Come over and help us."

MEDICAL STATISTICS OF MISSION WORK IN THE EAST.

Enclosed in the pages of the present issue you will find the blanks and return envelopes of which we spoke in October and which you are requested to fill out as fully as possible and return to the Editors. These blanks are issued in the hope that through them chiefly and

through other means in the hands of the Editors, we may gather together enough data to give us at least some good idea of the medical mission work that is being done in China and the East at the present time; its scope and results, and perhaps of its quality as well. Let every one who is responsible for any medical mission work in the East at this time lend a hand in getting our facts and statistics as complete and satisfactory as possible, each one realizing that the short time required to fill out these blanks will go to the general good, not only of us who are at work but of the cause we stand for at large.

It is the intention of the Editor either to compile the results so obtained or at a later date to ask for the appointment of a committee to take up the material thus acquired and put it to the best possible service. Remember that this scheme has not only the hearty endorsement of Dr. Neal but is taken up at his suggestion and particular wish. Our work is growing by leaps and bounds. We believe that even an incomplete idea of where we now stand, would astonish the most hopeful of us. LET US SET TO WITH A WILL AND FIND OUT HOW MEDICINE IN CHINA STANDS TO-DAY.

HOSPITAL PLANS, ETC.

At a meeting of medical missionaries held at Kuling on July 24th, a special request was voted "That the Editors of the MEDICAL MISSIONARY JOURNAL be asked to collect copies of plans, specifications and cost of every hospital in China, and that such plans be deposited for easy reference in a portfolio to be kept in some convenient place in Shanghai. (See October, 1903. Page 173.)

The Editors fully appreciate the immense service that such a collection will be to the considerable number of us who are engaged in building and rebuilding our hospitals, and desire, with your co-operation, to carry out this suggestion to the best of our ability which in the end means to the utmost extent of your willingness to co-operate in the same. Towards this end we have already caused to be made a large portfolio and begun the deposition therein of three or four hospital plans, photographs, etc., which have been forwarded to us by a small advanced guard of those who make the general welfare of our body their sincere and practical interest. The portfolio will be kept for the present in the office of one of the Editors, in the business part of Shanghai, No. 4B Minghong Road, and is at the service of any and all who desire to consult it. If there shall be a hearty response to this present appeal

to you all to send the above data of your own hospitals and dispensaries for insertion in the same, then we shall regularly forward it to Kuling for the summer months, where it will remain till Fall in the keeping of the Central China Association.

Please remember that we not only need plans, etc., of the larger and more extensive hospitals but also of the smaller ones and dispensaries, in order that the collection may be as complete as possible and serve the interests and requirements of the largest number. We should like to receive responses from every active hospital worker who can spare the time necessary to help make this collection a really valuable and useful possession of the Society, and especially from every member who by voting for this undertaking at Kuling last summer placed upon the Editors a work which individually that member is in duty bound to support.

A PRIZE OFFERED FOR SCIENTIFIC ARTICLES BY CHINESE.

There are at the present time a large number of earnest and well trained native Chinese physicians practicing their profession in the East and, whether as native missionaries or as private practitioners, serving the best interests of scientific medicine in China. Many of these have been in practice for years and have developed true professional minds and methods, and we are looking for the day to come when they will, as the Japanese are already doing, take their place among the original workers of the scientific medical world. Many are already competent to present their work and observations for general perusal and criticism and, we are led to believe, would do so if they could but feel that their written expression is wished for and will receive a generous welcome and sympathetic reading. For our own part we are longing to hear from our students along these lines and look forward to their initiative with confidence and sincere interest, and the matter has been on our mind to such degree that we have wondered if any effort on our part can help accomplish the desired result.

In pursuance of this trend of thought the Editors of the JOURNAL wish to emphasize the fact that we hold our columns open to the work of Chinese physicians and will gladly publish the same at any time, making full allowance for the difficulties of English composition and the expression of scientific thought. We will publish the original English or the translation of the Chinese, or if clearly written and

expressed and also so desired by the contributor, the original Chinese of Chinese physicians submitting to us articles suitable for publication in this JOURNAL.

Furthermore we offer, in the name of the JOURNAL, a prize of twenty-five dollars for the original article which, in the estimation of the Editors, shall possess the greatest scientific value and practical interest, to those practicing medicine in China, combined. The conditions for its award to be as follows :—

1. There shall be at least three articles offered by different men in competition.

2. The article will be the original production of a Chinese practitioner of scientific medicine.

3. It will be either in English originally or an unmodified translation of the original into English.

4. It will be in the hands of the Editors not later than August 1st, 1904. The award to be made in our issue of October next.

5. All articles so submitted to be the property of this JOURNAL and publishable by us at our option.

6. The subject of the article must be concerned with special (that is applicable to China) theory or practice of medicine in China, either individual or general.

If these conditions are not clear the Editors will be glad to answer questions on the subject, and they specially request that members of the Association will present the matter and help out by their advice and suggestions any pupils or friends whom they think might like to submit papers in competition.

IMPERIAL MARITIME CUSTOMS MEDICAL REPORT.

The Medical Report of the Imperial Maritime Customs for the year ending September 30th, 1903, is just at hand. The report is as usual interesting, but not as extensive as one might be led to expect or hope for, considering the wide range of country that it covers. One remarkable feature about it is the small amount of data on the cholera epidemic of last year.

Dr. Thomson furnishes some interesting observations on the types of malaria prevalent in Hankow, a report on enteric and a series of cases of meningitis coming under his care. His contributions are always readable, thoughtful, and show a true love of research too often

neglected or crowded out in the excess of work which so fills the life of the average medical man here in China. It is gratifying to note that of the thirteen contributors to the report, four are medical missionaries in their respective ports.

THE MORRISON SOCIETY.

The programme of the Morrison Society, organized in Kuling last summer, should appeal in the strongest terms to medical men working in any field and especially to those who, as we, are heart and soul in mission work. The fact that it is distinctly for scientific work and that its direct beneficiaries are missionaries and that its dependence is on them alone, gives it the independence without which it cannot do the work it has in mind to do. The membership of the Society seems to have been chiefly drawn from the ranks of the younger men in China, that is, from those who, while they have been at work long enough to appreciate the problems involved, solved and unsolved, have yet the courage and freedom of mind to begin again at the bottom of some of our less steady and certain climbs and discarding the ladders and rope bridges of empiricism lend their sturdy spirits to the laying of permanent roads of which the pavement shall be scientific fact.

A circular letter issued by the society, in October, gives the following facts in explanatory statement of its purpose:—

SHANGHAI, *October 2nd, 1903*

DEAR SIR: It has been felt for a long time by many persons that there is need in China of a magazine which shall treat all subjects connected with mission work in this country in a more technical and specialized way than is commonly done by any magazine now published. Articles of this sort would be of little interest to the general reader, but might be of the greatest use to those actually grappling with the problems of the work or preparing to do so. Thus the experience of one successful worker might be brought to bear in a practical way on the work of many, hopeful methods might be indicated, and dangers pointed out. That mission conferences and missionary magazines do this to a considerable extent is freely recognised; but conferences in most missions occur at long intervals, and the result of their deliberations is not always available in useful form to the special student, and the fact is undeniable that articles of the kind indicated are not offered in large numbers to existing magazines.

In view of all this, a private meeting to discuss the matter was held in Kuling in September, 1903, composed of the following gentlemen: Rev. L. H. Roots, Rev. G. L. Pullan, Dr. O. T. Logan, Dr. S. Cochran, Dr. R. T. Booth, Rev. E. C. Lobenstine, Dr. J. B. Woods, Rev. G. F. Mosher, Dr. J. Butchart, Rev. W. R. Hunt, Rev. W. Deans, Rev. G. A. Clayton, Bishop J. A. Ingle and Mr. F. S. Brockman. They decided that it is unwise at this time to attempt to establish a magazine, and organized themselves into

the "Morrison Society for the study of problems relating to mission work in China." Bishop Ingle was chosen president and Mr. F. S. Brockman secretary. These two officers were entrusted with the duty of securing from competent writers papers such as are described above, having them printed for private circulation among the members, and, if they deem advisable, offering them for wider circulation in the pages of missionary publications.

As the meeting was not called until many who would have been interested had left Kuling, and there was not opportunity for wide or prolonged discussion, it was decided that, for the present, membership in the Society should be, in the main, limited to persons resident in Mid-China; that candidates for membership should be recommended by a member and approved by the president and secretary; that they should be only those who subscribe themselves as in sympathy with the aim of the Society (viz., full and free discussion, in a scientific spirit, of the problems of mission work in China) and willing to be liable to a proportionate share of the expense of securing and printing the papers, to an amount not exceeding Mexican \$10.00 each for the year. The present form of organization is purely tentative, and it is hoped that a meeting may be held in Kuling next year to provide something more permanent.

We have, in a letter to Mr. Brockman, expressed our hearty sympathy with the aims and ideals of the Morrison Society and extended to the same our cordial readiness to hold our columns open to papers of the Society which shall deal with questions of interest to medical missionaries and look forward to the pleasure of presenting to our readers careful work on scientific lines of the members of this promising organization.

NOTE.—In our October issue, through an oversight, Dr. Woodhull's work was published under the head of Medical Progress and the credit of the same given to another. The Editors desire to express their particular regret for their mistake, inasmuch as Dr. Woodhull, who has charge of the Skin Department, is one of the most regular and prompt of our associates and takes special pains to make her department of interest and service.

Hospital Reports.

St. Luke's Hospital for Chinese, Shanghai.

gives a summary of the medical work done during the year:—

Medical:—Internal 398; External 15,667; Total 16,067		
Surgical:— do. 468; do. 11,425; do. 11,893		
Grand totals	866	27,092
Operations:—In-patients	..	205
Out-patients *	..	580
		785

* NOTE.—This does not include the incision of very small abscesses, etc.

The new hospital building is going up, and we hope to occupy it next summer. It will be a fine modern building with up-to-date appliances and with greatly increased accommodation for in-patients of all classes.

The new houses for the medical pupils and for the native staff are nearly completed, and we hope to make use of them ere the end of November.

Every year, and this is particularly so of the past twelve months, sees a marked increase in the quantity and severity of the accidental surgery that presents itself at our doors, due to the growing shipping, building, and manufacturing interests of fast-growing Shanghai; and as the confidence of the natives in Western scientific methods increases by leaps and bounds we are almost overwhelmed by the amount of general surgery that imperatively demands treatment. For the former, foreigners in China are largely responsible, and they should do all in their power to mitigate the condition by providing for its prompt and efficient handling, and for the latter, both foreigner and Chinese may well feel the responsibility of sufficient provision

Towards these ends, much has already been done in the gift from

America of the new hospital main building, which is more than half completed at this time of writing, and which will vastly enrich us surgically by more than doubling our beds, giving us a completely modern operating suite X-ray room, sun-parlor for convalescents, museum, accident room, graded private rooms and hospital chapel, offices, waiting rooms, etc. But there remains to be provided a certain large part of the furnishings of the new building and all of the funds required for the support of the expansions.

Our greatest need is for more and better surgical nurses. These can only be had by obtaining more liberal funds for their training and support. It is pitiful that we cannot give a case of abdominal operation an individual nurse for even the one night immediately following operation; that we cannot provide one nurse who can devote his time to the care of the operating rooms and keep himself surgically clean for that so important work.

All the regular services have been maintained with, it may be, a few exceptions. There have been 739 services and visitations, or 312 services and 427 visitations. Many of the cases have been very interesting, and without doubt would have received baptism if their environments after leaving us were not so adverse to Christianity, or they could have been more within our "sphere of influence" after leaving us.

We had a most interesting case of a youth of about fifteen, who was brought in to undergo a severe operation. After the operation he was dangerously ill for several weeks. However he gradually grew better and was greatly impressed with, to him, the new ideas

of Christian truth. It was a pleasure to see his bright face when we entered the ward. He read with interest the books we gave him. His father, who visited occasionally, was a pleasant Chinese gentleman, but naturally took little or no interest in anything of a religious nature, as is the case with most of the Chinese gentry. The fact is, with the centuries of ancestral worship instilled into their minds, that whatever may be the condition of the spiritual part of their being after death, in any case the spirit's rest and happiness will depend on what their descendants do for them in offerings and worship. We see then that a father is bound to oppose his son becoming a Christian. This young fellow would, with further instruction, gladly have accepted baptism, but we would not baptise so young a lad without his father's consent. So he returned to his home and we leave him to the grace and power of his Heavenly Father and wait in hope. This is one of our greatest difficulties, how to keep the truth and light before the minds of those who go out from our wards.

Our assistant, Mr. Wong, in some notes on the work, which he has handed me, tells how this difficulty is some-

times overcome. He says, speaking of the patients: "As a rule we find them pleased with our conversation about Christian truth, and many are ready to give their money for our books and to read them. . . . Many after leaving us attend other churches than ours and some come to us here in Hongkew. . . . Some, when with us, only desire to dispute about the person of Christ. One says that Christ was not a Western man but a Chinese. This," he adds, "is mere ignorance." Or we might say pure Chinese conceit—that all good had its origin in China. Mr. Wong adds, "but contest brings light in the end. Many dispute nothing, so learn nothing."

In conclusion, I would, following Mr. Wong's last word, add, no one who does not constantly see the work done in our hospitals for poor and wretched, sick and suffering humanity, can realise the vast amount of pain and misery that is relieved day by day each year. I say, from constant sight and knowledge of its extent—all honour for this self-sacrificing work be given to our medical and surgical practitioners—the men and women of our hospitals in Shanghai.

Correspondence.

LONDON MISSIONARY SOCIETY, }
 TSAO-SHIH, HANKOW, Nov. 26, 1903. }

EDITOR OF JOURNAL.

DEAR SIR: Recently I was staying a few days at an official's home and he showed me how the Chinese make a drug; it was very simple and cheap; so you may like to have an account of it.

He mixed *alum* and *saltpetre* together and melted it with water or wine; this he put into a small shallow open pot, the usual one they cook rice in, and placed it on a slow charcoal fire till all the moisture had evaporated. Then he added *quicksilver* to the dried powder in the warm cooking pot and covered it with a rice bowl; the rice bowl was plastered round with some clay from a druggist's, which he called 赤石脂; the fire was kept up steadily for four hours, and if any steam came through the mud more was plastered on. At the end of four hours the rice bowl was taken up and inside it was evenly covered with a fine bright red powder, which I suppose was *hydrag æ rub*. He says it is of use in sores, abscesses that have already begun to discharge. The residue in the iron pot is efficacious for itch he said.

The various amounts are:—

水銀, *mercury*, one ounce.

火硝, *saltpetre*, " "

白礬, *alum*, " "

All these are purchasable at any native store.

This mandarin is a brother of Yang Jui, who was disembowelled by the Empress in 1900. He is an admirer of foreign ways. Last year, when the city was suffering from cholera, he told me that, to copy Western methods he opened a large temple as hospital, appointed four native doctors to try

their various methods; then he chose the most successful one and made the other three use his methods; all patients were treated free, numbering some thousands. This mandarin had been an official at Lao-hu-k'ou, where he had learnt much from a medical missionary there. I don't know this doctor, but it would please him to hear how the county mandarin refers to him. Benefiting therefrom we have received much kindness from him, including a good subscription to the hospital. This is a specimen of the leavening that is going on in China; side by side go the growth of the mustard plant and the leavening of the whole lump.

Yours truly,

E. F. WILLS.

W. M. S., HANKOW, Oct. 20th, 1903.

DEAR MR. EDITOR: I am sorry to have to report that the Consular Body in Peking has not seen its way to present the memorial re free entry of hospital stores, etc., to the notice of the Chinese government. This is the third attempt which has proved a failure. Whether any further effort should be made is open to question. Appended hereto is a copy of the official reply recently to hand.

I am,

Very sincerely yours,

R. T. BOOTH,

Hon. Secretary, C. C. M. M. A.

PE'KIN, le 8 Octobre, 1903.

Legation D'Autriche-Hongrie en Chine.
 (Décanal).

MESSIEURS,—Vous avez bien voulu appeler l'attention du Corp Diplomatique sur l'intérêt qu'il y aurait à obtenir l'entrée en franchise des médicaments et produits pharmaceutiques destinés aux despenxeurs et aux hôpitaux.

J'ai l'honneur de vous faire savoir que malgré toute la sympathie qu'il porte à ces institutions, le Corps Diplomatique a estimé qu'il ne se trouvait pas en mesure de réclamer du gouvernement Chinois cette exemption de droits à laquelle il opposent de nombreux précédents.

Je vous en exprime tous mes regrets. Veuillez agréer, Messieurs, l'assurance de mes considérations distinguées.

A Messieurs les membres de l'Association Médicale de Missions Évangélique de la Chine.

NEWLY-FOUNDED CHUNGKING MEDICAL SOCIETY.

CHUNGKING, November 23rd, 1903.

DEAR EDITOR: Herewith I am sending you the ground floor plan of our hospital. It has not been drawn on a scale, but I guess the readers of the JOURNAL will be able to make it out.

I am also sending you a photo of the front.

It may be interesting to you as editor of the JOURNAL to hear that we have organized a medical society here in Chungking. We hold meetings the second Tuesday in each month.

We have already held four meetings, and they promise to be very helpful in every way. For the past year we have had on an average eleven doctors in this port. The British fleet furnishes three, the French two and the missionary community the remainder. No doubt you have heard of Dr. O. F. Hall's death, which occurred on the 24th of October.

Sincerely yours,
J. H. McCARTNEY.

C. C. M. M. ASSOCIATION.

Programme for 1904.

Mar.	2	Paper.	{ Diseases of Ribs and Sternum	{ Dr. DAVENPORT.
"	16	"	Clinical.	
"	30	"	Urinary Calculi . .	Dr. McALL.
Apr.	13	"	Tropical Sanitation .	Dr. BOOTH.
"	27	"	Clinical.	
May	11	"	Plaster Surgery .	Dr. GILLISON.
"	25	"	Eczema	Dr. MASSET.
June	1	"	Clinical.	

SUMMER RECESS.

Sept.	23	Paper.	{ Emergency Surgery .	{ Dr. DAVENPORT.
Oct.	12	"	Advance in Malaria.	Dr. BOOTH.
"	26	"	Clinical.	
Nov.	2	"	Out-Pt. Gynaecology.	Dr. GOUGH.
"	16	"	{ Clinical Bacteriology.	{ Dr. TATCHELL.
"	30	"	Clinical.	
Dec.	14	"	Annual Business Meeting.	

NOTE:—The report for 1903 has reached the editors too late for insertion in this number.

BIRTHS.

At Chefoo, November 2nd, the wife of ALFRED HOGG M.A., M.D. C. I. M., of a son.

At Hankow, on December 12th, 1903, the wife of R. T. BOOTH, Wesleyan Mission, of a son, John Herbert Perrott.

MARRIAGE.

At St John's pro-Cathedral, Jessfield, Shanghai, December 15th, CHARLES S. F. LINCOLN, A.B., M.D., and WILLIETTE WOODSIDE, daughter of G. R. Eastham, Esq., of Harrisonburg, Va., U. S. A., both of the American Church Mission.

DEATHS.

At Chungking, OSMAN F. HALL, M.D., M. E. M., of Tsi-cheo.

At Wei-hai-wei, November 24th, of diabetes, HAROLD HARMON, son of Dr. J. N. Case, aged 5 years and 1 month.

ARRIVALS.

November —, SARAH J. RIJNHART, M.D., and child, F. C. M., Tibet, returning November 15th, R. H. GLOVER, M.D., and wife, returning, C. and M. A., Wuhu. November 22nd, J. R. COX, M.D., Can. M. M., West China.

November 25th, J. L. KEELER, M.D., and wife, M. E. M., Peking; W. M. HEMINGWAY, M.D., and wife, A. B. C. F. M., Tung-cho; F. K. GODDARD, M.D., A. B. M. U., Shao-shing.

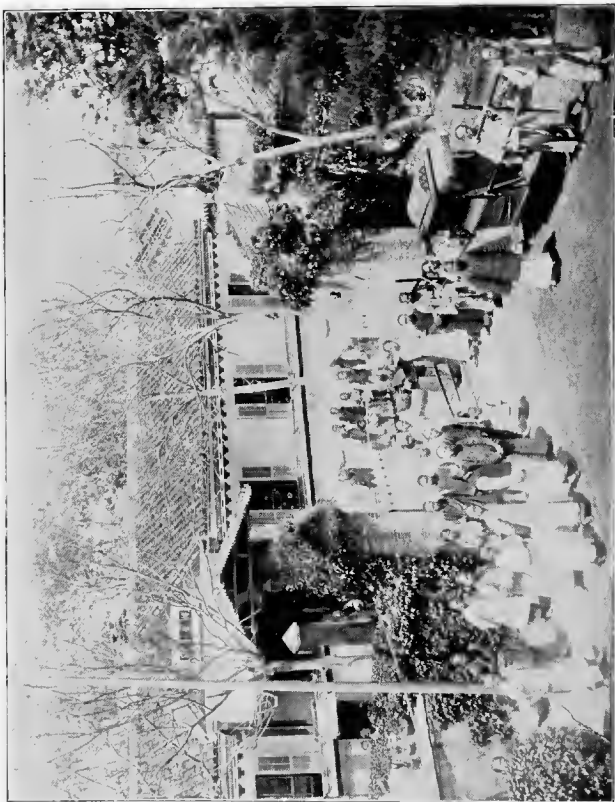
December 12th, CHARLES LEWIS, M.D., A. P. M., Peking, returning.

DEPARTURES.

November 21st, W. S. PRUEN, L.R.C.P., wife and three children, C. I. M., for England; Miss M. BURNHAM, M.D., late W. U. M., Shanghai, for America.



FRONT VIEW OF SOOCHOW HOSPITAL.



The
China Medical Missionary Journal.

VOL. XVIII.

APRIL, 1904.

No. 2.

Original Communications.

[All papers must be in the hands of the Editors two months before date of publication to insure their appearance in the following number. The editors cannot undertake to return manuscripts which are sent to them. A complimentary edition of a dozen reprints of his article will be furnished each contributor. Any number of reprints may be had at reasonable rates if a *written* order for the same accompany the paper.]

SOME RECENT ADVANCES IN OPHTHALMOLOGY*.

By SYDNEY R. HODGE, M.R.C.S., L.R.C.P.

The short time allotted to a paper makes brevity an essential element of success. I shall try, in covering as much ground as possible, to be as brief as is consistent with clearness and to touch only on matters that are likely to be of interest to us in our work out here.

In common with our confrères in every part of the world we find a good deal of our work has to do with purulent ophthalmia and its results. Quite recently a new and simple treatment has been suggested which seems to me to have many advantages over *silver nitrate*. Mons. Vian, a French surgeon, uses concentrated solutions of *permanganate of potash* and asserts (1) that the cure is rapid, (2) that the application has no bad effect on the cornea, as the *permanganate*, though an extremely strong astringent, is not in the least caustic, (3) that the application is relatively painless and (4) that the *permanganate* does not aggravate the condition in cases of diphtheritic conjunctivitis, a disease of which the diagnosis may at first be doubtful, while *silver nitrate*, in such cases, sets up a marked exacerbation. He uses a ten per cent. solution night and morning and applies it on absorbent cotton wool, rolled round a wooden or metal stem and destroyed at once. When swelling prevents eversion of the eyelids he pushes his medicated stem between the lid and the eye and cleanses each cul-de-sac in turn. When suppuration is profuse, Vian repeatedly cleanses the eye with warm *boric* lotion and prescribes poultices of borated rice, renewed every two hours. As suppuration diminishes

* A paper read before the Hankow Medical Missionary Association.

the *potash permanganate* solution is used less frequently, first once a day, then every two days and so on. When suppuration is at an end yellow ointment is used twice a day for a few days or weeks to clear the yellowish infiltration of the cornea which is often then seen. Under this treatment Vian affirms he never sees the indelible leucomata due to the penetration of *silver chloride* into the corneal lesion, such as are often met with after the use of *silver nitrate*.

When purulent ophthalmia is due to gonorrhœa the chief danger to be feared is ulceration of the cornea. A German surgeon, Goldzieher by name, has lately treated such cases by fixing a flap of conjunctiva over the ulcer. In every case the infiltrated cornea cleared, hypopyon disappeared, and the danger of staphyloma was avoided. Should there be a prolapse of the iris this must first be removed. Should these results be confirmed I see no reason why the same treatment should not be applied to other intractable ulcers. [Magaz. Ophthalmology.]

When I was last in England Mr. Pridgin Teale, of Leeds, brought before me the advantages of peritomy in many intractable inflammatory affections of the cornea, and both Dr. Booth and I have used it with success. Just lately he has formally brought his views before the Ophthalmological Society of Great Britain. The old operation of syndectomy (often called peritomy in text-books) was, as its name implies, an excision of a strip of conjunctival and subconjunctival tissue, a quarter or one-third inch or so in breadth, so as to denude and expose a ring of sclera completely or partly round the cornea and was mostly done for old standing and densely vascularised infiltration of the margin of the cornea, which is usually symmetrical. By "peritomy" Mr. Teale means "the laying bare by scissors of about one quarter of an inch in breadth of the sclera immediately surrounding the cornea and the dividing of the vessels in that area which enter or emerge from the sclera *without any cutting away of tissue*." He adds: "This separated conjunctiva in some cases reunites so rapidly to the denuded surface and corneal margin that in severe cases I think it well to make two, three, or four radial cuts into the freed edge of conjunctiva so as to retard the reunion with the corneal periphery and secure a more distinct cicatricial union as a means of cutting off and constricting vascular congestion." The operation acts probably sometimes by depleting and cutting off vessels, by formation of cicatricial tissue and sometimes by counter irritation of a powerful nature. In many cases it is a good thing to curette the denuded surface, so that if any little vessels have been missed they may be torn across, and this is especially the case if there be much congestion. It seems also to be a matter of some little importance that the circumference

cut should be quite at the edge of the cornea. The operation is especially recommended in severe and chronic episcleritis and cases of vascular ulcer of the cornea, whilst in specific inherited interstitial keratitis, Mr. Teale considers it "the most powerful weapon we possess" for combating the disease; he has also used it in purulent ophthalmia, herpes ophthalmicus and iritis.

A form of eye trouble which we ought to occasionally see out here is the chronic serpiginous ulcer of the cornea, known in Germany by the bad name of "*ulcus rodens*." This ulcer was first clinically differentiated from hypopyon ulcer and accurately described by Mooren in 1867 and so is also known as "*Mooren's ulcer*." It is rare, intractable to treatment, and has no known cause. An exhaustive paper on the subject, including a summary of all the hitherto published cases, amounting to seventy-four, has lately been published by Mr. Nettleship, and I am indebted to that paper for what I have to tell you this afternoon. The ulceration always begins at the border of the cornea, usually as a narrow crescent of infiltration or an excoriation of the epithelium, and occupies only a small part of the circumference. In nearly three-fourths of the cases it begins on some part of the margin that is more or less uncovered when the lids are open, whilst in the remainder it usually starts at the upper margin. The process, though progressive, is essentially a superficial one in the anterior layers of the cornea, the middle and deeper layers being untouched; therefore hypopyon and perforation are rare, although iritis is common. Pain, congestion and photophobia are prominent symptoms. The progress of the ulceration is well described by Mr. Nettleship thus: "In from one to two weeks the initial lesion ulcerates and the ulceration thenceforward spreads both in length, along the border, and in breadth towards the centre of the cornea. Unless checked it invades the whole area, leaving the cornea thinned, scarred and semi-opaque. Sometimes a second ulcer forms at another part of the circumference, and the two eventually join. The ulceration never attacks either the conjunctiva or sclerotic, nor is there any thickening or deposit anywhere. Sometimes a series of small secondary ulcers form on the already healed scar, and these may lead to protrusions and perforation. The advancing edge of the ulcer forms a narrow, sinuous, whitish band, level with the healthy cornea beyond, and of which the two ends are usually in advance of the centre, so that the diseased surface at this stage is roughly crescentic or sometimes almost semilunar. This narrow opaque band consists of the line of active disease overhung and obscured by a lip of half-dead corneal tissue with its epithelium; the cornea beyond it is usually clear and healthy. The ulcer does not increase

uniformly either in time or place. It may be stationary for days, weeks, or even occasionally for months, the ulcerated part healing so far as can be clinically determined; then, without apparent reason, small spots of infiltration appear just in advance of some part of the opaque line, run together, and in two or three days break down, giving rise to a fresh little bay or extension of the ulcer. Healing almost keeps pace with ulceration, so that only the part near the advancing border is actually ulcerated; the rest of the affected surface being more or less healed and covered by epithelium, beneath which straggling blood-vessels pass across from the scleral border."

The disease is particularly one of adult life, three quarters of the cases occurring after forty; but a case, thought to be of the same nature, has been reported in a child of three (Trans. Ophth. Soc. Vol. XXIII). The duration of the disease seems to be mostly from four to twelve months. The whole clinical course of the disease suggests some pathogenic organism, but so far none has been found, and whilst there seems to be no connexion with any particular constitutional state, yet Mr. Nettleship thinks that the question of a syphilitic taint has not hitherto been sufficiently investigated. Treatment may be said to resolve itself into the galvano-cautery or pure *carbolic acid*, or both. If *carbolic acid* is used it should first be liquified by warmth or by a few drops of alcohol and applied carefully with a small splinter of wood, the ulcer being dried with blotting paper both before and after the application; to prevent the *acid* from running. In using the cautery everything depends on how it is done. The best way is to first cut away with scissors or knife the overhanging border of the advancing edge and, after scraping it, to then burn it deeply, even at the cost of spoiling a little good tissue beyond the line of disease. A fiddling timidity is fatal to success. Whichever treatment one uses it is necessary to remember that the disease often recurs, even after being definitely checked, and the patient must be watched for many weeks or months; the prognosis too is much worse when both eyes are attacked, whether simultaneously or with a long interval. Statistics showing that three quarters of these cases go on to universal leucoma.

The last Bowman Lecture of the Ophthalmological Soc. of G. B. was delivered by Prof. Fuchs, of Vienna, and from it I should like to cull one or two remarks of practical interest. He points out the corneal epithelium is the only safeguard the deeper structures have, aided as it is by its extreme sensibility to pain. In its endeavour to prevent external agencies, microbes, etc., penetrating through the deeper part of the cornea it has developed the power of rapid proliferation and a tendency to level all inequalities and penetrate into every cleft of the cornea. It will

sometimes penetrate so rapidly between the lips of a clean incised wound as to prevent the two lips healing. Occasionally after cataract extraction it will rapidly pass down between the edges of the wound, reach the front surface of Descemet's membrane and quickly line the whole anterior chamber with epithelium, thus forming a true cyst of the aqueous chamber, a condition which is followed by increased tension, and he thinks this condition "may sometimes be the cause of increased tension after cataract extraction in cases where no other cause can be found to account for glaucoma." In cases of marginal ulcers, even the chronic serpiginous ulcer, one sees the epithelium rapidly covering up the invaded cornea, following close on the advancing edge, its vital energy being greater at the margin of the cornea, as it is there near to the nutrient vessels of the limbus. It is interesting to note that Professor Fuchs is a firm believer in the existence of a genuine *neuroparalytic keratitis*. He writes: "Many authors deny the existence of true neuroparalytic keratitis and consider it to be always due to exsiccation of the corneal surface. I have myself no doubt that the keratitis occurring in rabbits after section of the fifth nerve is mostly due to exsiccation; but I doubt still less the existence of genuine neuroparalytic keratitis in man, especially as this form of keratitis occurs also when exsiccation is carefully avoided by bandage. Besides, it has a most characteristic appearance, entirely different from any other form of keratitis. It begins in typical cases with the falling off of the epithelium; at first in the centre, and spreading from here to the margin where it stops 2 mm. to 3 mm. for the limbus. Here the epithelium may even proliferate and form a small, greyish ring, slightly projecting, which surrounds the bare, dry, dull and hazy-looking surface of the cornea, which then slowly becomes more opaque and remains so for ever, unless it be lost by suppuration." I have seen this condition more than once in China, but have never had the opportunity of watching its evolution from the commencement. All cases of acute corneal disease are attended by a greater or less amount of infiltration of the corneal epithelium, which may be superficial only or be so deep as to expose the basement membrane, but it may also occur in unhealthy conditions of the conjunctiva, such as gonorrhoeal ophthalmia. As such a desquamative catarrh of the corneal epithelium facilitates the invasion of microbes, and so endangers the cornea, it is easy to understand why conjunctival diseases are so often followed by corneal disorder.

The Professor utters a word of warning as to the use of *cocaine*. This drug seems to have a powerful influence for evil upon the cornea. Professor Fuchs writes: "If before an operation it be instilled for a long time, especially if the patient does not keep his eye carefully shut mean-

while, we see the epithelium at first become opaque and dull and finally entirely thrown off. Indeed partial epithelial abrasions are a common occurrence after an imprudent application of *cocaine*. For this reason I avoid giving the drug into the hands of the patient as an anodyne, *especially in cases of keratitis*, where it may decidedly influence the course of the disease unfavourably." This is worth remembering in cases of corneal ulcer, especially in private practice. And here I should like to draw attention to Zeiss' new binocular corneal microscope, an instrument which, it seems to me, is likely to become as necessary a part of an ophthalmic surgeon's outfit as an ophthalmoscope. With this instrument it is possible to observe the current of the blood in the vessels of the conjunctiva, the nerves of the cornea, and the state of the corneal epithelium. One author, Stargardt, asserts that it is possible to make the diagnosis of sympathetic inflammation, before other alterations are visible, by the endothelial lesions revealed by this instrument. But even without it, most valuable data as to the true nature and probable course of cornea disease may be obtained by a strong lens, and such an examination should never be omitted.

Coming now to a few matters of operative interest, let me first draw your attention to a recent paper by Mr. Adams Frost on the operative treatment of myopia. It is only quite recently, since the publication of Fukala's monograph in 1891, that it has been considered justifiable to attempt to cure myopia by extraction of the lens. Under certain conditions, which he enumerates, Mr. Frost considers that any degree of myopia over 15 D can be practically cured by the operation. Not that he thinks the operation arrests the progressive elongation of the eyeball, but that the continued elongation will no longer cause the same increase in the myopia. The operation is most suitable for young adults, and it is not advisable unless the other eye is a useful one. The author arrives at these conclusions: (1) The operation should be restricted to patients whose actual myopia is *not less* than 12 D (i.e., who require a correcting lens of not less than 13.5 D). (2) The patient should be able to read 1. J. without glasses with each eye, thus showing that the function of the macula is good. (3) Except under special circumstances, the operation should be limited to the more myopic eye; the eye that remains myopic can see near objects unaided, while the other serves for distant vision. The possibility of obtaining binocular vision is too remote to be worth considering. (4) After the entire removal of the lens, the distant vision *without glasses* is usually at least as good as it was before *with glasses*, and with correction it is usually much better. The method of operating is the same as for lamellar cataract-discission,

"The lens matter may be needled pretty freely at the first sitting and a week or ten days later the lens matter may be evacuated, a final needling being generally required."

The question of operation in glaucoma is an important one, and though I have seen very few cases out here it may be well to recall one of the latest published opinions on the subject. The late Mr. David Little, of Manchester, made it the subject of his presidential address at the Ophthalmological Society last year. In common with most surgeons he affirmed his preference for iridectomy over sclerotomy. He had given the latter a fair trial, but abandoned it chiefly because of the iris complications and the too frequent recurrence of tension. He reserves sclerotomy as a secondary operation when iridectomy has failed and says that when it is necessary to resort to it, he prefers the incision in the coloboma rather than a second iridectomy on the opposite or any other part of the eye.

Speaking of the operation itself (which he testifies is the most difficult of all the operations on the eye, and in certain advanced cases, when the iris periphery is extensively adherent to the cornea, and with a small antechamber, almost impossible of performance even in the most experienced hands) he says many failures are due to a faulty performance of the operation; the line of incision being made too near the cornea and not sufficiently long. As a consequence of this the iritic angle is not opened, the iris is not removed up to its root and so no channel being opened for the escape of the pent-up intra-ocular fluid, the operation fails. He points out that in the majority of cases iridectomy does unmistakably reduce tension permanently; and "if patients go blind subsequently, it is seldom from a recurrence of the glaucoma but from a progressive atrophy of the nerve." In support of his statement as to the permanence of the result of iridectomy he followed up thirty-seven cases for periods of from seven to twelve years after the operation. "Of these ten had become blind, one from atrophy of the globe, another from a recurrence of the glaucoma; the remaining eight cases were blind from atrophy of the nerve; the tension in these eight cases being normal. Of the other twenty-seven cases, the vision in four of them had considerably deteriorated and they were slowly going down hill from atrophy of the nerve; in the remaining twenty-three cases the vision in some was better than at the time of operation, in most of them it was about the same, in a few others it was a little worse but not in any serious degree." The whole twenty-three appeared to be in about a stationary condition and perfectly satisfactory. This gives a result of sixty-two per cent., permanently good results.

This paper has already gone beyond the prescribed limit, so I will close with two practical remarks. The first is that in cases of symblepheron, after division and excision of the cicatricial tissue, the raw surface should be covered with Thierch's graft; the graft being kept in place by two sutures so placed that the length of the sutures cross over the length of the graft in the shape of the capital X.

The second suggestion is that in cases of total evisceration of the orbit for malignant disease the healing process should be shortened by covering the surface left with grafts. Four cases have thus been treated very successfully; in two of them the grafts were placed at once on the orbital wall at the time of evisceration, in the other two cases grafting was done about a fortnight afterwards after granulations had formed. As all the cases were equally successful there seems no object in not doing the grafting at once.

[The accompanying article is a paper written by Dr. Bland-Sutton, of London, and published in the *Middlesex Hospital Archives*. Vol. 1. November, 1903.

Last year I removed a dermoid of testicle from one of the boys in our Hankow Blind School. In the interest of science I forwarded the tumour to Dr. Sutton for full detailed examination. In return he has sent me the following paper on the subject. Knowing that such a paper cannot fail to be of interest and instruction to us all, I have asked the Editor to kindly print in our JOURNAL.

R. T. BOOTH, M.D., Hankow.]

AN ESSAY ON DERMOIDS OF THE TESTIS AND SCROTUM.

BY J. BLAND-SUTTON.

(*From the Archives of the Middlesex Hospital, London.*)

After reading the accounts in the current text-books on surgery concerning dermoids of the testis and scrotum, an impression is left on my mind that surgical writers do not fully realize the extreme rarity of such tumours. I hope that the facts set forth in this Essay will stimulate those surgeons who work particularly among children to carefully record cases bearing on this question.

In 1889 I devoted the *Hunterian Lectures* entirely to the consideration and classification of dermoids, and endeavoured to extricate them from the conglomerate class known as cysts, and formed them into a special group. Dermoids of the scrotum and testicle gave me great difficulty, for it was evident that no clear distinction had been drawn between dermoids of the scrotum and those intimately associated with the testis. This is a matter of prime importance, because scrotal dermoids arise in the same manner as those with which we are familiar at the angle of the orbit and in the course of the facial fissures, that is, by inclusion during embryonic life of surface epiblast; they belong to

the genus sequestration dermoids. The anatomical landmark, so to speak, between a dermoid of the scrotum and one of the testicle, is the tunica vaginalis. Testicular dermoids have a different origin, as there is proof of their existence in the testis before it descended into the scrotum, and in the case of the horse such dermoids are associated almost invariably with retained (undescended) testes.

My greatest difficulty in dealing with the question was the lack of concrete material. During the last twenty years only two examples have been recorded as far as I can ascertain in English literature, and the Continental publications of the last fifty years furnish under twenty cases. It was therefore with great interest that I received from Dr. Hodge, Hankow, Central China, a testis removed by Dr. Booth, which contained a typical dermoid, accompanied by the following history:—

A blind boy, sixteen years old, with an enlarged testis, has been in our blind school (Hankow) for nine years. The boy says his mother told him "he had it when he was born." He had frequent inflammatory attacks of the scrotum following injury, such as crushing against a stool, etc. He came to the out-patient clinic during one of the attacks, which rapidly subsided under an evaporating lotion.

At the operation the right testicle was small but normal in position. The skin over the front of the left testicle was reddened, and a sinus existed at the junction of the scrotum and penis; the testicle appeared as a globular, tense, but elastic mass, as though filled with fluid, and no distinction could be made between the body of the testis and the epididymis. The spermatic cord was thickened.

In the course of the operation some pus escaped from beneath the reddened skin, otherwise the organ was shelled out and removed entire without any difficulty. The sinus and the adherent skin associated with it was excised, and the edges of the skin brought together with sutures and the wound drained. The boy made an uninterrupted recovery.

Dr. Booth then goes on to say; On opening the tumour by a longitudinal incision, he found it filled with hair, grease, and a mass of tissue containing a tooth. In the interest of pathological science he and Dr. Hodge resisted the temptation to make a complete dissection, but preferred to place it in my hands for thorough investigation.

The tumour is globular, with a diameter of 5 c.m.; near the lower pole it presents an irregular body. The walls of the tumour are thick and gristly, resembling thickened tunica albuginea, but the whole mass was invested by a delicate tunica vaginalis. The cavity of the dermoid contained the usual sebaceous matter mixed with loose hairs, and a

sessile body of irregular shape consisting of bone and hyaline cartilage covered with tissue, which to the naked eye looked like mucous membrane. Embedded in the upper end of this tissue there was a multicuspidate tooth resembling those found in ovarian dermoids, FIG. 1; its crown still covered with mucous membrane. The soft investing tissue also possessed some delicate lanugo-like hairs. Microscopically this tissue was found to be covered mainly with stratified epithelium; in some parts it exhibited a single layer of columnar and subcolumnar cells. Sebaceous glands were fairly numerous.

The soft irregular body, to which reference has already been made, lying near the lower pole of the tumour but outside its capsule, received particular attention, because I thought that it might probably turn out to be the true testis. I made a very careful search for traces of the vas deferens, but this was unsuccessful, due partly to the fact that formalin solution makes the tissue hard and brittle, thus rendering them unsuitable for minute dissection. The tissues were submitted to thorough microscopic examination, but no testicular tissue could be made out; but the mass consisted of a collection of round cells surrounding and isolating large giant cells; the disposition of the cells and their character recalling that seen in tuberculous disease of the epididymis, but tubercle bacilli were not detected.

It disappointed me greatly that I was unable, even after the most critical examination, to determine whether the dermoid was situated inside the tunica albuginea and replaced the testis, for I failed to find any of the usual anatomical guides, such as the epididymis or the vas deferens. Though this specimen is interesting in itself, it is useless in helping to solve the source of testicular dermoids.

In its gross anatomy and structural details this tumour reveals the usual features of dermoids growing in relation with the testis. Some, it is true, are more complex and contain nerve cells, as in one very carefully reported case examined by Cornil—in a "bud" growing from the cyst-wall a collection of nerve-tissue containing ganglion cells was detected.

In its clinical details the tumour did not differ from its forerunners. There is a remarkable uniformity in this respect. In nearly all the recorded cases enlargement of the testis was observed at or shortly after birth. In a fair proportion the patients were deprived of the affected organ in early childhood. In those who were not operated upon during infancy, the tumour seems to have caused little inconvenience; indeed it appears to lie dormant till puberty, then bruises and knocks, or abscesses and sinuses cause trouble and lead to surgical interference.



FIG. 1. A DERMOID OF THE TESTIS SHOWN IN SECTION.
DR. BOOTH'S SPECIMEN.

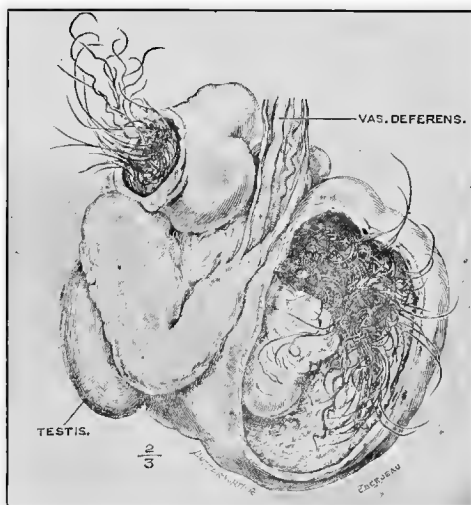


FIG. 2.—UNDESCENDED TESTIS REMOVED FROM A COLT. It is associated with large dermoid containing grease and coarse hair like that of the mane and tail.

Most of our knowledge of testicular dermoids dates from an elaborate article published by Verneuil in 1855, founded on the reports of nine cases he collected from the literature of the preceding one hundred and fifty years, and one example which came under his own observation. The conclusions expressed in this admirable paper have become classical, and form the foundation of our knowledge of the subject; and even at this date, nearly half a century since its publication, Verneuil's views are reproduced (frequently without any reference to, and often perhaps in ignorance of their source) in monographs devoted to diseases of the male genital organs and in text-books of surgery. It is true, notwithstanding the fact that these tumours can now be studied with all the advantages of modern histologic methods and differential staining, that we know no more concerning their pathogenesis than Verneuil, and testicular dermoids remain with us as with him pathological curiosities.

Verneuil shows in the title of his Paper ("Memoire sur l'inclusion Scrotale et Testiculaire")—which title he relates was selected as conveying precisely the view he held in regard to the nature of the disease—he believed that testicular dermoids belonged to the class of double monsters known as parasitic fœtuses. A study of the records published during the last ten years supports Verneuil's contention that dermoids within the tunica vaginalis, though attached to, and often intimately associated with, the testis, are not really "of the testis" in its strictest sense; they do not arise from transformation of testicular tissue, but whether they should be regarded as parasitic fœtuses (teratomata) is another question, and one which requires further consideration and elucidation. In some of the cases the dermoid was attached to the gland by such slender connections that the surgeon succeeded in detaching the tumour and preserved the testis. Admirable conservative operations of this character are recorded by Cornil and Beger, Chevassu and Reclus. These facts, in conjunction with the observations that in some of the best described examples the dermoids, though incorporated with, were nevertheless independent of, the essential glandular tissue of the testis, are of first-rate importance in its bearing on the source of ovarian dermoids. The view which I hold strongly is that dermoids of the ovary arise in and from modifications of the cell-elements of the ovarian follicles. If similar tumours can arise from modifications of the germ elements of the testis, the theory must fall; but a critical study of testicular dermoids indicates in no uncertain way that even those dermoids which appear intimately incorporated with the gland are not of the testis proper, but have an extra-glandular origin. It remains for those who

have opportunities of studying perfectly fresh specimens of testicular dermoids to make careful search for the testis and to verify its tissues microscopically.

In this desirable search for the truth veterinarians can lend assistance, for horses, especially cryptorchid specimens, seem liable to testicular dermoids, a fact which has been known nearly a century. Verneuil refers to a case reported by Meckel in 1818 of a testicular dermoid in a stallion; it contained bone, grease, and hair. A case was recorded by Patu in 1833, occupied by cartilage, hair, and sebaceous matter. Hobday has collected from recent veterinary literature three examples from horses, all associated with undescended (abdominal) testes, and containing pilose skin, loose hair, grease, and in one instance seven imperfect teeth. In each instance the hair resembled the coarse hair of the mane and tail.

I have to thank Mr. Hobday for the specimen represented in FIG. 2. It is a testicular dermoid from a cryptorchid colt. The dermoid is attached to the testis and the epididymis, but it is outside the tunica albuginea. The tubular elements of the testis appear to be normal.

It is also important to note in studying the records of testicular dermoids in horses, that the authors often incidentally mention that the testis was recognized apart from the dermoids.

The occurrence of dermoids in the undescended testes of horses has a clinical interest, for, as I have already mentioned in the records of the human cases, although the unusual size of the testis was invariably noticed at birth, yet it did not interfere with the descent of the organ. There is a case recorded by Delbet in which a testis, retained at birth in the inguinal ring, gradually descended to the scrotum; subsequently it was found to be occupied by a dermoid. In this respect horses and boys differ very markedly, but they agree in the following points: that though a dermoid may be attached to, or incorporated with, either a right or a left testis in fairly equal proportions, an example of bilateral testicular dermoid has yet to be recorded. In this respect the testes are in marked contrast with ovaries, for ovarian dermoids are very frequently bilateral.

Literature.—It is an interesting feature of the writings concerning dermoids of the testis that the majority of the observations, and certainly the best among them, have been the work of French surgical writers. It would seem that the classical monograph of Verneuil gave the subject a French domicile. The subjoined list makes no pretence to completeness, but furnishes references to the best known and most easily

accessible records, in which the details are related with sufficient care and completeness as to make them useful either for the surgeon or the pathologist :—

Verneuil.	"Arch. Gen. de Med.," 1855, 5th Series, vol. v., 641, and vol. vi., 21, 191, 299.
Cornil and Berger	"Bull. de l'Acad. de Med.," 1885, tome xiv., 275.
Reclus.	"Traite de Chirurgie," Duplay-Reclus, 1899, tome vii., 1083.
Chevassu.	"Société de Chirurgie," 1898, t. xciv., 60.
Láng.	"Virchow's Archiv.," 1871, bd. liii., 128.
Kockel.	"Cent. für Chir.," 1896, 958.
Kocker.	Pitha u. Billroth, "Handbuch die Chir.," bd. iii., Abth. ii., 390.
D'Arcy Power.	"Trans. Path. Soc.," vol. xxxviii., 224.
Jackson Clarke.	" <i>Ibid.</i> ," vol. xlvii., 148.
Bilton Pollard.	" <i>Ibid.</i> ," vol. xxxvii., 342.

Horses.

Meckel.	"Handbuch der Path. Anat.," bd. ii., Abth. ii., s. 275. Leipzig, 1818.
Dewar.	"Veterinarian," 1896, vol. lxviii., 371.
Hobday.	"The Castration of Cryptorchid Horses." London, 1903.

It is curious that of three dermoids of the testis recorded in London during the last twenty years by D'Arcy Power, Jackson Clarke, and myself, two of the examples came from across the seas. Clarke's specimen was removed in India by Surgeon-General Giles, and the specimen described in this essay comes from Hankow in Central China.

NOTE.—Although in this Essay the rarity of scrotal and testicular dermoids is insisted on, it is worth while to state that tumours of the testis of any kind may be regarded as uncommon. To give some indication of their infrequency I asked the Surgical Registrar, Mr. Aslett Baldwin, to furnish me with a list of the cases which came into the wards of the Hospital for operation during the last twenty-three years. The result is somewhat astonishing. From the year 1880 to 1902, both these years included, there were thirteen cases of tumour of the testis; they were all sarcomata. In the period 1893 to 1896, including these two years, no case of testicular tumour appears in the Hospital records.

SOOCHOW HOSPITAL.

The Soochow hospital for men has been in operation just twenty years. It is under the M. E. Church, South.

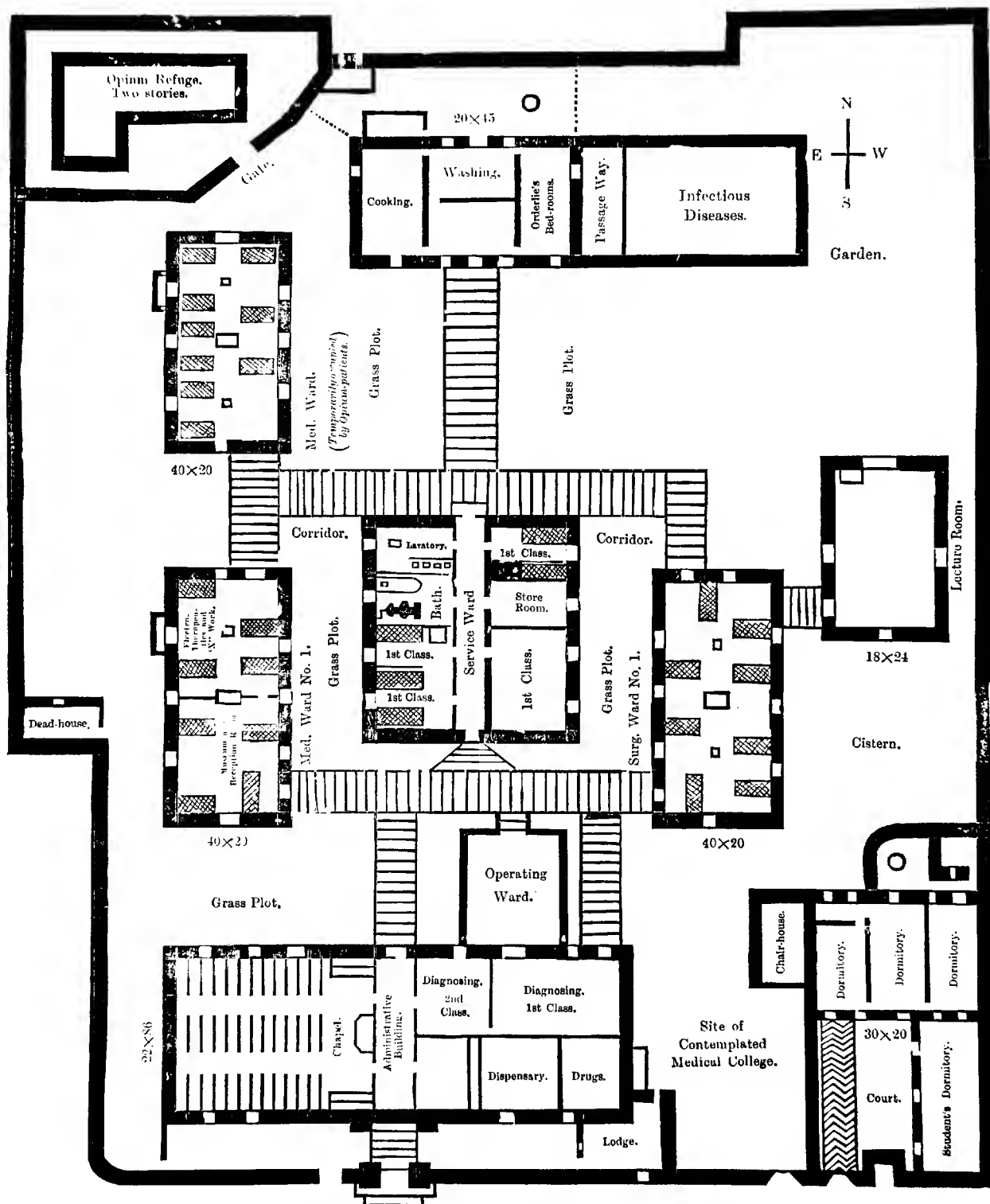
The plan herewith does not include the hospital for women, which is next door, and under the same Mission, but under different management. As will be seen from the plan the wards are quite separate one from another, all connected by covered passage ways. All buildings are about four feet from the ground, allowing free circulation of air underneath.

The total number of patients to pass through our hands last year is 13,567.

While we do a great deal of charity work, every one who is able to do so is expected to pay something. The dispensary patients are divided into first and second classes. The entrance fees are fifty-six and twenty-eight cash respectively. The first class patients are seen by the foreign physician, the second class by a native graduate with the foreign physician as consultant. All first class patients pay something for their medicines. Both classes pay for containers. In-patients range from free to ten dollars entrance fee; food extra. Opium patients are classified as first, second, and third class patients who pay two, five and ten dollars respectively for the time necessary to rid them entirely of the desire to smoke. The hospital is self-supporting.

There is a large out practice connected with the hospital which adds greatly to the revenue of the hospital, though it consumes a great deal of time.

Since the hospital was first opened, there have been classes of students receiving both didactic and clinical instruction. In 1894 the then existing class was organized into a regular medical school. This class consisted of students from the two hospitals under the M. E. Church, South, two young women and three young men. Since that time we have conducted a co-educational institution. Last year the school became a chartered institution under the laws of the State of Tennessee and is now the Medical Department of the Soochow University.



PLAN OF SOOCHOW HOSPITAL. M. E., SOUTH.



REAR VIEW OF SOOCHOW HOSPITAL.



HOME OF PHYSICIAN IN CHARGE.



NOTE ON CASE.

By V. H. YANG, Wusih (Graduate of Soochow Hospital).

A young man, about thirty years of age, was recently employed as a clerk in a newly-opened pawn shop outside of the West Gate, Wusih. As is customary in China, feasts must be given at the opening of a shop, so the young man was kept from returning home at the usual hour in the night, which made his wife very angry. Unfortunately there was a feast again on the second night, so the young man did not return home any earlier than on the previous night; however he was let in by his father after knocking a long time at the gate of his home, as his wife determined that she would not open the door for him, in order to show her disapproval of his returning home at such a late hour, regardless of the position and duty of her husband. The woman kept very quiet until next morning, when a quarrel arose, and then a fight was begun between the couple; of course the man was the victim of the two, so the woman caught his forearm and gave him a cruel bite, on the under side, just below the elbow. It was noticed that there was no bleeding from the penetrated skin. After the fight, the man in his anger and disappointment rushed to his father's store. After two or three days his friends noticed that he began to lose flesh and strength rapidly, but nobody knew the cause of it, and he was sent home in a chair by his friends. The wound then gave intense pain and became odematous. The swelling gradually extended upward until it reached the chest on the side of the affected arm. The father, after discovering the suffering of his only son, sent first for a Chinese surgeon and then for one of my students who was living near them. On the arrival of my student the patient was found unconscious; this unconsciousness had been preceded by two days of delirium. There was a yellowish serum oozing from the odematous arm above the wound and the skin of the whole arm was tense and of a dark purplish hue. My student saw that the patient was past help, and so did not treat him; the poor man died a few hours afterward, on the seventh day after he was bitten.

Some years ago I saw two cases of swelling resulting from bites by human teeth: one on the ball of the thumb, the other on one of the fingers. In both cases the arm swelled as far as the elbow, and the pus from the wounds had a penetrating offensive odor. In one case the bone became necrosed, but as neither of the cases were my own I was unable to learn the final results. From what I saw of them the symptoms were somewhat like those of snake bites.

A HOSPITAL PLAN.

HANKOW, *February 24th, 1904.*

DEAR SIR: I am going up to Kansuh to start medical work. I have made a plan of a hospital. I think you might perhaps like to see it and to add it to the collection at Shanghai.

The hospital could easily be enlarged without altering the plan at all, by extending the wings and by adding stories. With such in view, the dimensions could of course be made larger below. In the copper and wash house could be kept the *boiled* water, hot and cold, from which the surgery, wards, and opposite room could be supplied. The surgery is conveniently placed for both out and in-patients. An operating table for septic cases could be kept there.

Side buildings could be added between the N. and central wings (thirty-one feet interspace).

By opening the folding doors the wards and halls form one large preaching place. A table in the centre could be placed for servants and convalescents.

The out-patient department explains itself.

With kind regards, yours sincerely,

J. W. HEWETT, M.R.C.S., L.R.C.P.

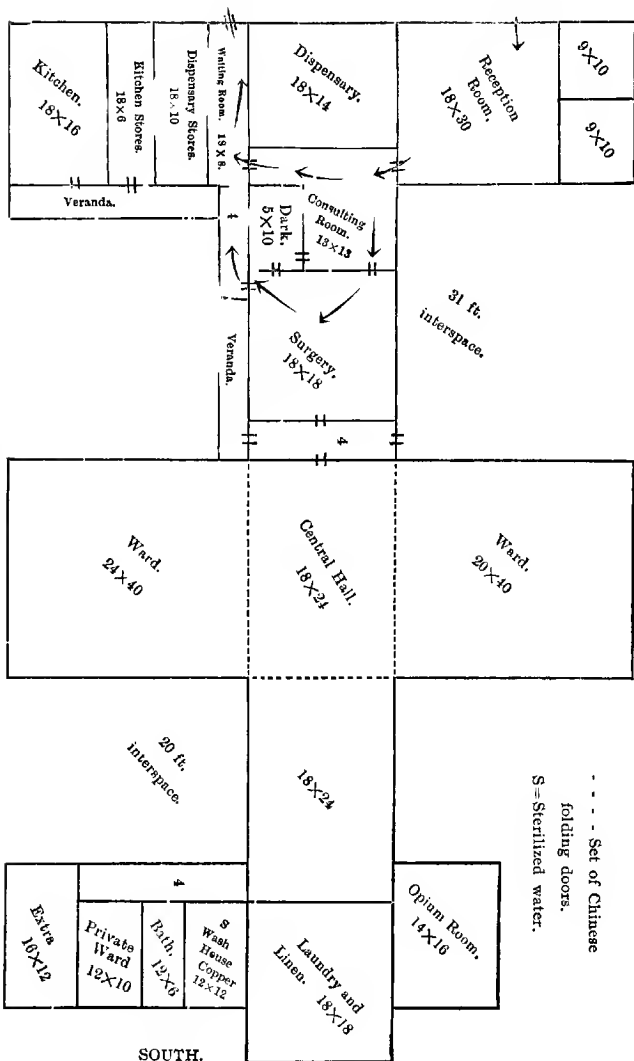
HOSPITAL DISCIPLINE IN MISSION WORK.

(Z.)

Let me first call your attention to the fact that Jesus Christ was the most successful disciplinarian in all history. It is a very positive characteristic of the Master of men which is not often spoken of and which I believe to be of special importance to us His commissioned followers in the movement for the establishment of the kingdom of God in the East. It is a common saying that, from the human standpoint, at the time of Christ's death His work was or seemed a failure. That may be so in general matters, but in this matter of discipline Christ's success was, even at that time, a positive and self-evident fact. At the outset of His ministry He chose from His acquaintance twelve men

Exit. NORTH.

Entrance.



of various professions, ages and worldly estates, and these without an exception He retained in His service and fellowship to the day of His death. He never dismissed one, He never quarrelled with one, He never dispaired of one. Judas betrayed Him, judged and hanged himself in self-condemnation, but the Master received His kiss and gently rebuked him for its lie. The figure of Christ was ever the personification of dignity. He was laughed at, stoned, beaten, spat upon, but the final verdict was, "truly this man was the Son of God." He was crowned with a crown of thorns, but Pilate stands like a puppet before the Majesty of Jesus the prisoner. He consorted with men with whom we have no friendly dealings, and the worst that His enemies could say of this was that He was their friend. His friendship made a saint of a fallen woman, but the words of Christ are the balance upon which the world finds wanting the purity of its morality. How does this record compare with the record of those who carry on His work to-day? Can we say the same of our relation to our disciples and of our standing among the Chinese? Is our discipline, allowing for human limitations, along the same lines as that of Christ? It seems to me that in two important respects it is largely so and that in one, most important respect, it is largely not so.

If we look for the basis of Christ's success as a disciplinarian it is not perhaps very difficult to discover, at least in part. We have the record of many words and acts that bear directly on the subject. ranging, if we accept the common interpretation, from those of truest tenderness to those of so called righteous anger. We see Him with His whole soul concentrated in desire for the signs of promise in the heart of the rich young Jew; there is no wholesale condemnation but yearning sympathy in the discipline, and then "If thou wouldest be perfect, give all the temptation away, come and follow me." And on the other hand, we hear Him, in the most scathing of all scathing condemnations, His denunciation of the Scribes and Pharisees beginning "Woe unto you Scribes and Pharisee, hypocrites," pouring out the supreme passion of that great righteous soul at the whitewash of official rottenness, and ending with the words, "Ye serpents, ye offspring of vipers, how shall ye escape the judgment of hell?" In words Christ never minced matter. He told the woman of Samaria that the man she was living with was not her husband. In act He was free and bold. It took but a look to recall Peter to life-long allegiance and it took the whole strength of His personality to cleanse the house of His Father, but He was as ready to act in this as in that. Whether we accept the powerful rendering which the great religious painter Hoffman has given

in his picture of the cleansing of the Temple and see the Christ in passion, with scourge in hand, driving the money makers from the Temple court, or believe, as the more accurate translations suggest, that there was a cord to drive the cattle out and a word that would brook no human disobedience, there was in either case an intimation to us that there may at times be reason for righteous indignation and for action; but personally I believe that from the day of His birth Jesus never raised His hands except in blessing, to the day on Calvary when He raised them up in universal benediction.

Other than the following factors in Christ's success as a disciplinarian will quickly suggest themselves to you, but probably these three are the more important :—

1st. Absolute justice, the justice of God which is tempered with mercy and understanding of human deficiency.

2nd. Complete grasp of the principle that the best master is the servant of all, that to lead means to serve.

3rd. The power of discrimination between the man and the sin of the man.

Turning to the application of Christ's methods to our work let us first recall clearly to our mind what we should mean in using the word discipline. Discipline is "the treatment suited to a disciple or learner, that is, the development of his faculties by instruction and exercise." The idea of punishment is only a small part of the whole and in Christ's example apparently insignificantly so, and then by way of correction and training. It is of course never primarily an act of self-satisfaction, physical or intellectual; never a letting off of energy. That is not what discipline is for, not for the disciplinarian, but for the disciple. Right discipline is always and essentially altruistic. It is just here, and particularly on the servant question, that we most often fail. We discipline for our own benefit and we fail to win the allegiance we desire. But of this, later on.

The question of practical discipline, with regard to the Chinese who follow or serve us, and which I propose to you for discussion at this time, is certainly an involved one and has perplexed me more than any other that I have had to face in my own active medical missionary work in China.

I was chatting not long since with one of my assistants, whom I know as my most trustably honest and plain speaking of Chinese Christian friends, and he said that another of our Christian Chinese had said of a certain man that he "liked him better than any foreigner he had ever met." I asked him what it was in this individual that so par-

ticularly appealed to him, and his answer was : " He is so kind, not hard (the word he used was hyong), not hyong as the rest of you foreigners are." The conversation with its development made a strong impression on me, and I believe that, coming from the source it did, it is worthy of not a little consideration on our part. The Chinese as a body recognize that at least in his way the foreigner is by nature a just man and they learn to sincerely respect his justice, and this is an element in the discipline of Christ. And I believe that at least the Christians and not a few others recognize us missionaries to be more or less true and far more than less sincere servants of Jesus, which also means servants of humanity. But I am neither persuaded that the Chinese believe that we have, to any great extent, attained the gift of discriminating between the man and the wrong of the man, nor am I myself persuaded, with all due allowance for the to us well known difficulty of understanding the Eastern mind, that we have learned in this discrimination to follow Christ.

We certainly cannot do our work to the best fruition in China, whether it be in church matters, in school or in hospital, without good discipline, respect for authority, and the maintenance of dignity, but I do not believe that even discipline will win China for Christ if it is attained with any sacrifice of tenderness, of patience, of the encouragement bred of evident trust and personal sympathy. If the implication on the part of our Christian Chinese that we are hard be a just one, and that is a matter for earnest thought, then we are at fault indeed, for if Christ was hard then He was not the Son of the God of mercy. But my observations lead me to believe that many who have served in China longest and whose work has born the most perfect fruit have done so with both tenderness and good discipline, yet that on the whole we incline to hardness, that in our common conversation and every-day life we are hyper-critical, impatient, and tend to confuse the man and his sin. The servant question is one of those uncomfortable prospects that I do not contemplate with much satisfaction. There are some whom I know of that seldom employ a servant who leaves them other than a Christian man, but this I think you will agree with me is not the rule. There are many servants whom I believe gain little from us beside good wages, fairly just treatment, and the perfected knowledge of how to cheat the foreigner. It is true that men who have once served for any length of time in mission households and in other mission departments seem to rotate from place to place in the same, and, in spite of the temptation of higher wages outside, are inclined to remain in the circle. This shows that, as we speak Chinese, they do not learn enough English for

outside service ; also that we do pay their wages and that we do not kick and beat them.

The Chinese small-business man with whom we deal is sure of his money and equally certain of our much provoked impatience and mistrust. It is true that his Chinese neighbor is equally mistrustful of him and not so sure on the pay question.

In my work I am constantly face to face with the doubt as to whether I have sufficient evidence and grasp of the situation, whatever it may be, to take strong measures making for discipline, with the certainty of even common justice, let alone with an approach to the refinement of righteousness. Within a week, and often in the past, I have proved myself mistaken when I thought I was on certain ground. The particular case this week was in connection with an abjectly "k'oo-nau" specimen of the genus boy who presented himself at the hospital alone, filthy, in rags, and suffering from a large and extremely painful ulcer. He was apparently a victim of utter neglect, and though an apprentice, claimed to be without a cash and without any hope of financial aid. He was admitted to the hospital as a free patient, and at the end of a month was all but cured. About this time there appeared one morning in the ward his master, who said that, for various reasons, none of them the true one, he wished to take the boy home. I jumped to the conclusion that he believed him capable of being put to work and so had use for him again. Well, here was a case for righteous anger and I let myself go. I berated the man soundly, accused him of brutality, and went to the extent of threatening him with the Mixed Court for cruelty to the child. When I had gotten through and paused long enough to give the fellow time to speak, he mildly remarked that he really could not afford to pay the boy's expenses longer in the hospital (as it then appeared he had done regularly), and as he was so nearly well he simply proposed that he should be made an out-patient at three cents a day instead of an in-patient at twelve cents. You may be sure that my righteous anger looked suddenly like cheap theatre play and that I was glad enough to gain the master's consent to leave the boy in the hospital as a free patient until his cure should be completed. The man was not a saint and a good deal of a liar in a mild way, but he was ten times the man I had accused him of being.

Theoretically the question is partly solvable, but practically, to me, it is full of difficulties and the course seems to run constantly between the rocks of injustice and hardness and what I, as a physician, fear more, and as a Christian less, the shallows of poor discipline.

Here is the proposition:—

- 1st. That we are, on the whole, just, but that generally we do not sufficiently let the native Christians feel our confidence in them. That the evidence of trust begets trustworthiness.
- 2nd. That, except on the servant question, we realize that we are here to lead in service.
- 3rd. That in the majority of cases we do not sufficiently discriminate between the heart of the man and the appearance of his mistake, fault, or sin.

The solution lies in close study of the mind and methods of the Master.

A NOTE OR TWO ON SKIN GRAFTING.

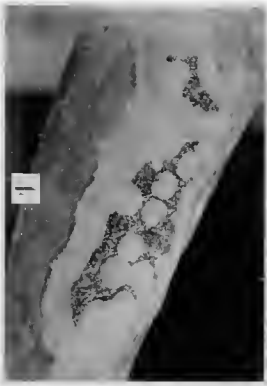
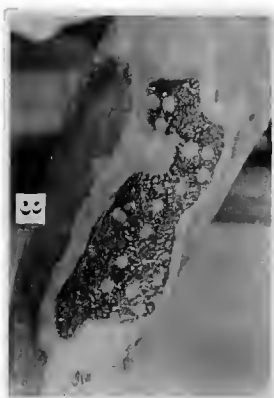
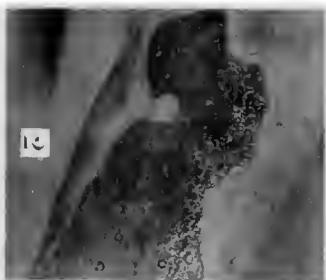
W. H. JEFFERYS, A.M., M.D., Shanghai.

In the January issue of the JOURNAL, I called attention to the fact that success in skin grafting depends largely on three factors—careful preparation of the patient, asepsis, and care against meddlesome surgery after the operation. It has been my good fortune to have among other duties that of looking over the reports of most of the hospitals in China, and I find that, on account of the vast number of large and neglected ulcers that come to us, skin grafting is one of the very common operations and one that is resorted to even in new stations in which the number and character of surgical procedures is limited by the well known circumstances that attend pioneer medical work in China.

The accompanying plate shows five stages in a case of skin grafting and represents what many surgeons are doing all over China, a very useful, widely applicable, and generally satisfactory factor in the practical routine of most of us. The case offers no salient features, but on the contrary is a very ordinary and every-day affair and is presented on that very account.

The patient was a boy of twelve years of age, in poor health, and presented himself in my clinic unable to walk and suffering from three large ulcers on the right leg; two covering most of the external aspect and being the result of an extensive lime burn received five years previously. The third ulcer was smaller and under the heel, and I judged it to be a pressure sore of long standing. The whole leg was eczematous and foul beyond description; the ulcers, as is often seen, were covered with brown paper stuck fast and simply rotten. This condition of the leg on removal of the paper, etc., is shown in (1) in the plate.

Following our rule in such cases, the patient was put to bed, the foot raised, patient put on tonic treatment and fed to the utmost, and the leg put through two weeks of cleansing and other treatment prepara-



SKIN GRAFTING.

ST. LUKE'S HOSPITAL, SHANGHAI.

SURGICAL WARDS.

Photos. by W. H. Jefferys, M D

tory to skin grafting. When the eczema had entirely subsided and the ulcers became healthy and sweet and all tendency to bleed had disappeared, some thirty pin head grafts were transplanted from the patient's arm and an aseptic dressing applied. (Strips of oiled silk, interlaced and covered with one thickness of gauze and plenty of cotton.) The first dressing was not removed till forty-eight hours had passed, after which it was dressed daily.

About two-thirds of the grafts took hold, and their growth was rapid and quickly covered the large area, aided by the marginal growth which proved considerably more than is usual in an ulcer of such long standing.

Photos 2, 3 and 4, show stages in growth of the grafts, fourth day, tenth, and end of second week respectfully. The fifth was taken after the entire surface had covered over and was perfectly dry. The patient was dismissed at the end of a month after the operation, cured and able to walk easily, in spite of a slight contraction at the knee joint which was present on admission, largely due to having walked on one leg for years and held the other leg up, also partly due to old contractions.

I have seen the patient since, some months after discharge, for another ailment and was glad to find that the skin grafts had not broken down except at one point. In this connection I have several times had my grafts break down, either from traumatism or from late infection. This latter has shown itself in the development in spots of a superficial moist gangrene of a delicate green color and which, I suppose, as it has happened three times in my wards, is due to a special saprophytic micro-organism. The process can be at once arrested with a weak solution of *nitrate of silver*, but this will also destroy some of the grafts and should therefore be used with care. If the gangrene gets a good start it will either destroy all that has been done or at least leave a large ulcer or two in the grafted area. In this case I would advise using some such local application for the ulcer as *bichloride of mercury* in glycerin, 1-500 (I owe this prescription to Dr. Reifsnyder's clinic in Shanghai) applied on gauze to the ulcer itself, not beyond, till it builds up again to the level of the rest of the part.

The contraction following this operation is much less than that which results from ulcers which are forced to do all their healing from the edges and of course much time is saved. Still there is in some cases a great deal of contraction which in certain places on the leg and arm may give rise to interference with the circulation.

NOTE.—In my paper published in January I made some remarks about the uncomfortable and improper conditions under which we have

been working at St. Luke's during the past year. It occurred to me afterwards that what I said might be misunderstood by some of the younger men in China who do not know Dr. Boone and his splendid work and the fine little operating room in which he worked before I ever darkened the doors of St. Luke's. It was a case of our being simply crowded out of our old quarters and the time of which I spoke was transitional when much of the old was torn down and much of the new unfinished.

SOME DEVELOPMENTS OF MODERN MEDICINE.

By C. S. F. LINCOLN, M.D.

The recent discovery of radium with its wonderful powers and its action upon living tissue brings us out of our work-a-day world with a sort of shock and we stop and ask ourselves, what next?

In many respects it seems as if the promise of the greatest advance and the most hopeful results in the future of curative as well as preventive medicine lies along the line of experimental physiology and the application of physiological chemistry for the relief and the removal or even the prevention of pathological conditions.

The impetus in this direction was undoubtedly given by labors of such men as Prof. Virchow, Brown-Séquard, and Pasteur, and to-day hundreds of men have entered into the labors which they so boldly and enthusiastically began.

Surely there can be no more fascinating field of research for him who has the training and the call thereto than to investigate the functions, in health and disease, of this marvelous body of ours, and particularly those changes so subtle and far reaching in their effects which are embraced in that vital word metabolism.

What is it? What are its causes? Why does it continue, retrograde, or cease? These are some of the questions that we daily have to ask ourselves and perhaps interrogate our physical natures for the answers.

According to the most recent works on physiology the key to this wonderful mystery, unknown to the student of a dozen years ago, is the adrenal system and its governing center the anterior portion of the pituitary body.

The cycle is briefly as follows: the stimulation of the anterior pituitary body is kept up by the secretion of the thyroid gland, and the former body, through the sympathetic nerves, is the direct controlling

force of the adrenal glands which in their turn produce a secretion which enters the blood plasma and is carried to the lungs, where it combines with oxygen and has a very marked effect on metabolism, both to sustain and increase the functional activity of many different organs.

Hereditary tendency to disease is now regarded as only a congenital depression of the adrenals which thereby weakens the body resistance to disease.

The action at all specific diseases, venoms, and toxic doses of drugs, is in most cases to overstimulate the adrenal system and then depress it. In either condition we get marked toxic symptoms.

In a similar manner, medicinal dose of drugs either simulate or depress these organs, and consequently increase or diminish the adrenal secretion.

The posterior part of the pituitary body on the other hand, acts as the regulator and stimulator of all functional activity and is also considered to be the center on which shock psychical or traumatic depends.

The spleen and pancreas have a very important co-operative part to play in maintaining the vital integrity. The latter sending to the spleen one of the so called internal secretions rich in trypsin which gives to the leucocytes their power as destructive agents to bacteria.

The action of the adrenal secretion on the heart action, the blood, the production of tissue waste, are well established, as also are the relations of these organs when diseased to rarer diseases of perverted nutrition, such as goitre, myxedema, and cretanism.

The new theory of the source of nervous energy being the force generated by the chemical union of this oxidizing product with the white substance of Schwaun also adds to the utility of this adrenal secretion.

These and hundreds of other problems are to-day being patiently worked out by the experimental physiologist and his no less strenuous colleague the physiological chemist. They may reap the glory, and they doubtless deserve much more than they receive, while the rank and file of the profession inherit the blessings of their investigations. Is it too much to hope for in modern therapeutics that the extracts of these important glands may be as potent for good as they give promise of being, and that the list of drugs may be reduced and simplified as the action of these important centers of vitality are and more clearly recognized ?

SYPHILITIC GANGRENE.

By R. B. EWAN, M.D., Chen-tu.

That syphilis is a fruitful source of arterial disease with its far reaching and varied train of evils has long been recognized, but that it may be, and not infrequently is, a direct factor in producing gangrene of the integument and extremities, seems to have received but slight attention judging from the spaces devoted to it in even such standard works as Allbutts' System of Medicine, Erichsen's Art of Surgery, and Cheyne and Burghard's Manual of Surgery. The only account I have been able to find is in Taylor's Venereal Diseases, 1895, Vol. II, page 744, who devotes less than two pages to Gangrene and Gangrenous Ulcers.' From this short article I make the following quotations:—

"In some cases of syphilis, as a result of changes in the coats of arteries and veins, gangrene is produced, by which portions of the integument and extremities are destroyed. Until within recent years all ulcerations occurring in syphilitic subjects were regarded as evidence of the breaking down of syphilitic infiltrations. To-day we clearly recognize the fact that spontaneous gangrene of the skin and its resulting ulcers may be due to syphilitic arteritis or to endarteritis obliterans."

"This degenerative condition usually begins in persons of poor nutrition, in those who are debilitated in consequence of bad regimen or excesses, in subjects who have not been properly treated and who live in squalor.

"The first evidence of syphilitic cutaneous gangrene is a mottling, with perhaps some scaling of the skin. The color then changes to a greenish-brown, and it finally becomes blackish brown. In some cases this eschar is soft and succulent; in others it is tough, dry, and withered. In some cases there is local pain; in others a want of sensibility and coldness in the parts is complained of. Trauma, heat, cold, or caustic applications have nothing to do with these lesions."

Under the title "Primitive Gangrene" Fournier describes a syphilitic manifestation which Bazin called "tuberculo-gangrenous syphilide." He thus describes the morbid process: "The lesion as soon as it has been formed, takes a livid color in the centre and a chocolate color in the peripheral portions, with insensibility of the diseased part, for in reality the formation of an eschar takes place, under which the mortified, insensible, sloughy tissues are found; no external occasional cause being recognizable. The mortified parts take on the appearance of gangrene; they become detached and underneath the syphilitic ulcer is found at last."

The author goes on to say that he has had several such cases under his care, and refers to cases reported by Podres, Lang, Cabot and Warren, Aune, Mendel, and Schuster, in which the upper and lower extremities were variously affected as well as localised and superficial areas of the integument. In Prof. Podres' case "microscopic examination showed inflammation of the external tunic of the arteries, degeneration of their endothelium, with thickening of their walls and obliteration of their calibre. There was also atrophy of the cutaneous nerves and glands. All of these changes were attributed by Podres to syphilis."

"Veins may be attacked by syphilis in much the same way that the arteries are, in both the secondary and tertiary stages. One or many veins may be attacked simultaneously or in succession. According to Mendel, the lesion is a gummatous deposit round the vessel."

The following cases, which have come under my notice during the past eighteen months, are offered as a small contribution to this subject:—

Case I. A man forty-eight years of age, very little above the beggar class, came to the clinic complaining that twelve days previous, while carrying a piece of timber, he had stepped into a hole and snapped his patella. I cut down, using the large horse-shoe incision and flap. The tissues were found mottled and discolored, and the bone so friable that the wire had to be passed through the tendon below. The wound healed by first intention, and for the first few days the result was satisfactory, but at the second dressing signs of gangrene began to appear in the flap. The eschar, which was dry and quite superficial, when it separated, left an ulcer about two square inches in size, which refused to heal till brisk anti-syphilitic treatment was administered. The mixed treatment caused stomatitis and had to be suspended for a time, during which there was a circumscribed necrosis of the new bone thrown out around the wire, with superficial abscess which had to be lanced, and later the wire was removed. He finally recovered with limited motion in the joint.

Case II. A chair-bearer, twenty-nine years of age, walked or rather hobbled into clinic, suffering from a diffuse, suppurating aneurism, extending from upper border of popliteal space to within six inches of heel, which had come on suddenly ten days before. I cut down and tied the artery just below the apex of scarpa's triangle, evacuated the clots and drained. During the first thirty-six hours circulation was much impaired, but after forty-eight hours improved rapidly. Three days later a large spot of moist gangrene, involving the tissues down to the bone, appeared on the outer aspect of the leg; on the end of each toe there was also a spot of dry gangrene. The sloughs developed in what

appeared to be perfectly healthy tissues, and certainly those on the toes were not due to pressure. He made a fairly rapid recovery under anti-syphilitic treatment.

Case III. It was reported to me that a beggar was going round the streets with a pair of 'black legs and feet like a Chinaman's dress boots,' and a few days later he appeared at the hospital gate. He was suffering from symmetrical gangrene of feet and legs. The line of demarcation had formed slightly above the junction of the lower and middle third of each leg, and the bones at this point were quite bare for nearly an inch. The tissues were shrivelled, blackish, and almost dry, except in vicinity of line of separation.

The condition came on suddenly, following convalescence from an attack of fever. He had been exposed to cold while soldiering, but the possible effect of frost was excluded by the fact that he was in Szechuan several months before he was taken ill. Both legs were amputated just below the point of election, and the tissues, including the arteries, especially of one leg, were found friable and apparently of low vitality. He made a good recovery and *grew fat* on free anti-syphilitic treatment.

I have now in the hospital ward another case of diffuse popliteal (?) aneurism, extending from apex of scarpa's triangle to within five inches of heel. The history pointed to a rupture of the artery forty days before he came to the hospital and his leg was in a terrible condition; in fact he seemed to be dying. On the inner aspect of the calf was a large livid spot $2\frac{1}{2}$ by 3 inches, which he said had developed within four or five days, and which next day began to separate in the form of a slough, leaving a punched out ulcer, extending to, but not involving the muscles. Owing to the late date of observation, I simply mention this case as being at least suggestive.

In conclusion I would present the following summary as pointing to syphilitic gangrene :—

I. With one exception the patients were young men, and were not so far as could be detected, suffering from general atheroma.

II. In each case there was reasonable proof of syphilitic taint.

III. In each case the rupture or occlusion came on suddenly, and if this occurring in the brain points to syphilis, as is claimed by some authorities; may not the same hold good for other parts of the body?

IV. No apparent or sufficient cause. This applies specially to cases I and III.

V. The eschars in their development, color, separation, and the resulting ulcers, closely resembled the description given by the author quoted.

VI. The therapeutic test.

On account of space I have confined myself to a bare outline of each case, but trust I have said sufficient to draw attention to an apparently frequently overlooked sequel to this extremely prevalent disease.

Medical and Surgical Progress.

Medical Progress.

Under the charge of Robert T. Booth, M.B., B.Ch., R. U. I.

In the first volume of the Archives of the Middlesex Hospital there is a very interesting article on two cases of hæmorrhagic typhoid fever, from which I thought it would be profitable to cull some extracts. I shall pass over the general history of the cases, merely noting that some of the usual signs of typhoid were absent, and that some of those present were not very marked. Ehrlich's reaction was not obtained on two attempts. Widal's reaction was tried four times. Three of these were negative, and one was so slight after ninety minutes' exposure that it was not considered definite enough to be of any diagnostic value. Hæmorrhagic symptoms showed themselves by severe epistaxis, numerous ecchymoses, and large quantities of blood passed in the urine. The gums were spongy and bled at times.

The post-mortem examination was made sixteen hours after death.

The large intestine contained a quantity of recently-effused blood; a few very small shallow ulcers were found at its upper end, and the mucous membrane generally was stained red. The mucous membrane of the lowest foot of the ileum was grey and shreddy, and there were several sharply-cut superficial ulcers. It was noted that all the ulcers here showed an early stage of the process of healing. Above this point some of Peyer's patches had a "shreddy" loose network appearance, but they were not ulcerated. A few small ulcers corresponding with solitary glands were seen. There was no reason to suppose that the hæmorrhage into

the bowel had arisen from an ulcer; all the appearances pointed to it being part of the general condition.

The mesenteric glands were enlarged to a moderate extent, and were soft. There was no peritonitis.

Small hæmorrhages were present all over the mucous membrane of the stomach.

The spleen weighed six ounces; it was enlarged, dark and unusually firm for a typhoid spleen. The kidneys were pale, and appeared to be normal, but there was extensive hæmorrhage into the pelvis of each kidney and into the peri-renal tissue on the right side.

There were hæmorrhages on the surface of the liver and into the mucous membrane of the bladder.

The muscular tissue of the heart was pale, and there were numerous hæmorrhages into its substance—in the valves and in the epicardium. The valves were otherwise normal. There were a few small hæmorrhages on the surface of the lungs. The viscera generally were œdematous.

BACTERIOLOGICAL EXAMINATION.

The negative results obtained by the blood-test on 7th, 14th and 25th January have been already stated. The following specimens were examined by culture for the presence of bacteria:—

1. A sample of blood and urine drawn off with a sterilized catheter on 24th January:
2. A few drops of blood which oozed from the urethra when a second attempt was made to draw off some urine on the same day. The bladder proved to be empty, but

after the catheter was withdrawn a little blood appeared :

3. Five c.c. of blood drawn off by a syringe from the basilic vein : and
4. Blood taken from the spleen after death.

From each of the specimens thus examined pure cultures of *B. typhosus* were obtained. The bacillus isolated was subjected to all the usual tests, including testing against an artificial typhoid serum with a dilution of 1:2000.

Case no 2 presented many of the same features, especially in the absence of Widal's reaction.

The post-mortem examination was made thirteen hours after death.

There were numerous hæmorrhages into the skin of the trunk and limbs.

In the lower two feet of the ileum there were several ulcers with sharply-defined margins; in some the floor was covered with a slough, in others only the peritoneal coat remained. In the ascending colon there were several ulcers.

The intestines contained recently-effused blood, and there were numerous hæmorrhages into the mucous membrane. The mesenteric glands were enlarged.

The spleen weighed 12½ ozs.; it was large and soft.

There were hæmorrhages into the pelvis of each kidney and into the wall of the gall-bladder.

The pericardium contained some slightly blood-stained fluid, and the membrane showed numerous hæmorrhages. The walls of the heart were pale and soft.

The lungs were deeply congested. Hæmorrhages were scattered over the pleura, and the mucous membrane of the larynx, trachea, and œsophagus presented similar appearances. Extensive bleeding had occurred in the rectus abdominis on each side, into the gluteus maximus and into many of the muscles of the neck.

BACTERIOLOGICAL EXAMINATION.

Culture-tubes were inoculated from : (1) the heart-blood, (2) the spleen (3) the lungs (4) the liver, (5) the kidneys, (6) the contents of the gall-bladder, (7) the hæmorrhagic area in the rectus abdominis muscle, and (8) a similar area in the gluteus maximus.

From the heart-blood and the spleen a pure culture of *B. typhosus* was obtained; and the same bacillus was identified in culture-tubes inoculated from the lungs, liver, and kidneys. From the gall-bladder, the rectus, and the gluteus maximus cultures of *B. typhosus* and *B. coli communis* were obtained.

The cultures of *B. typhosus* were completely identified, and were agglutinated by the blood of a patient with enteric fever, with a dilution of 1:100, and by an anti-typhoid serum from the horse, with a dilution of 1:3000.

The microscopical examination of the hæmorrhagic areas in the muscles showed the presence of a large number of large bacilli, which stained by Gram's method; the muscle fibres also showed the appearances which have been described as "Zenker's degeneration." The large bacilli present in the hæmorrhagic areas were not recovered on numerous culture-tubes inoculated with juice from the muscles and incubated under both ærobic and anærobic conditions.

It is interesting to note that an examination of the temperature chart in the first case shows that the pyrexia was not marked, and that the hæmorrhages did not occur at the period of highest temperature, nor did they, when they occurred, cause a marked fall of the temperature. In the second case pyrexia was more marked, and on one occasion the temperature fell to normal after a hæmorrhage. In the intestinal canal the bleeding

appeared to be due to a general oozing, and the same be said of the hæmorrhages elsewhere.

The gravity of the prognosis seems to depend chiefly on the extent of the hæmorrhages. Two-thirds of the cases end fatally.

In connection with these two cases, two questions of special interest to the pathologist arise: (1) As to the exact causation of the hæmorrhagic condition, and (2) With regard to the failure of the diagnostic Widal test.

With regard to (1) the writers after referring to the opinion that a general hæmorrhagic condition in typhoid fever follows in every case on changes in the blood resulting from secondary infections, and showing that hæmorrhage has occurred in cases of pure typhoid infection, e.g., case 1, and also in cases without any intestinal lesion, conclude by remarking:

Taking all the known facts into consideration it may, we think, be asserted that under certain conditions *B. typhosus* is able by itself to produce such changes in the quality of the blood that hæmorrhagic symptoms are manifested. Under what conditions this tendency to hæmorrhagic changes occurs we are without any knowledge, whether it is due to some special virulence of the particular strain of bacillus infecting, whether it is due to a naturally deficient power of resistance in the individual infected, or whether it is due to an unusually large dose of infecting organisms, so large that intense pathological changes are produced before the natural power of resistance to the infecting organism has had time to display itself.

The second question calling for special attention is the failure of Widal's diagnostic test, and closely related to this is the question of the value of that test for prognostic purposes.

Courmont and Etienne by a series of experiments obtained an "agglutination curve." The reaction was tested with serum dilutions of 1.10, 1.50, 1.100, 1.200, 1.300, 1.400, 1.500, two hours' contact being allowed. On comparing the curve with the temperature curve in an ordinarily severe case of typhoid fever terminating in recovery it was found that, with the first definite evidence of agglutination on the fifth or sixth day, the curve representing the gradually increasing agglutinative activity of the serum rose regularly, attained its maximum coincidently with the occurrence of the thermic defervescence, and commenced to fall immediately after the fall in the temperature curve. In cases which were clinically of an unusually mild type the appearance of agglutination was delayed, the agglutinative power never reached a high degree of intensity, and defervescence was rapid. In unusually severe cases the agglutination curve instead of rising regularly, parallel with the mean of the rising temperature curve, was irregular, and showed oscillations; the maximum reached was never high and the fall in the curve occurred without any corresponding fall in the temperature curve. The writers think that in the main we can accept these deductions.

It is obvious, however, that in such a disease as typhoid fever, in which a fatal result from perforation may occur in the course of an infection which clinically may be of the mildest type, the prognostic value of a good serum reaction must be rather doubtful.

A good serum reaction will suggest that the individual attacked has good natural power of resistance against the infecting bacillus and its toxic products, but cannot be expected to afford much guide as to the probability of what may be termed the accidents of the disease.

On the other hand, our own experience would lead us to believe that failure of the specific serum reaction in an undoubted case of typhoid fever is a sign of the gravest significance, and as a working rule for clinical practice we think that this generalization may be laid down: If in a case of suspected typhoid fever no definite specific serum reaction is obtainable by about the tenth or the fourteenth day of declared illness, one of two results may be expected—either the case will prove not to be one of typhoid fever, or else it will prove to be a case of typhoid fever of exceptional severity, and one in which a fatal result is probable.

Cases, again, in which the serum reaction develops slowly, and in which by about the twelfth day an agglutinative reaction is obtained only imperfectly and with low dilution, usually fall into two classes: rarely they will prove to be cases of typhoid fever of an unusually mild type; much more commonly they will prove to be what may be termed "severe" cases. In the "average" case of typhoid fever the serum reaction develops quickly and regularly, giving a good agglutinative reaction with a dilution of about 1:40 between the seventh and the tenth day.

These conclusions being arrived at from clinical experience, we may briefly refer to theoretical considerations which appear to support them.

We are still without any precise knowledge as to the nature of the substances which, accumulating in the blood as the result of a specific bacterial infection, ultimately confer immunity upon the individual and endow his blood with specific agglutinative properties. But we have every reason to believe that, in a case of natural infection, what may be termed "protective" and "agglutinative" substances are formed in response to the same

tissue stimulus; and in response to that stimulus it is likely the formation of the two classes of substance progresses in equal grade.

A person becomes infected with *B. typhosus*, and in response to the stimulus of infection his blood gradually acquires the protective and agglutinative properties which characterize the blood of active immunity. The protective properties of the blood augment until a certain stage of active immunity is reached, and then the infection comes to a natural end. And this, according to the observations of Courmont and Etienne, corresponds in point of time with the attainment of maximum agglutinative activity by the serum. And it is in the highest degree probable that when the formation of agglutinative substances is prevented or checked, then also there will be defect in the formation of protective substances—a hypothesis which will readily explain the grave prognostic import of failure to obtain the specific serum reaction in cases of typhoid fever.

Some of the cases which we have quoted show that hæmorrhagic complications in typhoid fever are not always coincident with complete failure of the agglutinative reaction; but none the less we cannot but think that there may have been some relation between the failure of the reaction and the severity of the symptoms in the two cases now recorded.

With regard to the use of anti-typhoid serum the writers say: "By the time the average case of typhoid fever comes under treatment the normal mechanism productive of active immunity is already in action, and no great effect should be expected from the giving of additional doses of protective substances. But, on the other hand, that when complete or partial failure of the specific agglutinative reaction indicates incomplete reaction to the stimulus

of infection, much more might be expected from the administration of a serum, which would supply the deficient protective substances." These remarks apply only to the administration of a "curative" anti-typhoid serum. The administration of a "protective" vaccine is not to be advised when the patient is already infected.

Surgical.

Under the charge of J. B. FERN, M.D.

APPENDICITIS.

In the *Therapeutic Gazette* of December we find the following, which will be reassuring to those who are so situated that an operation for appendicitis is fraught with more danger than the simpler plan of assisting nature:—

In a recent number of the *Presse Medicale* the views of Roux on treatment of appendicitis are indicated in an article published by Dr. Gaudin, who acted as his assistant at Lausanne. With the help of Dr. Senn, he chose a number of typical observations of appendicitis and established five different types: (1) The usual form, with McBurney's point; (2) the retrocecal type, with abscess; (3) the mesocolic form, where the appendix is found in the folds of the intestine; (4) the pelvic form, with abscess in the cul-de-sac of Douglass; and (5) a last form, very rarely seen, in which there is no peritoneal reaction; death taking place well-nigh invariably. There is a natural tendency to limitation, with the exception of this last form, provided the right medical treatment is carried out. According to Dr. Roux, ninety-five per cent. of all cases of appendicitis do not require operation if the following simple treatment is used: Absolute rest, the patient not being moved from the house. No purgatives, no solids nor liquids for forty-eight hours. In case there is any pain, laudanum may be given, or preferably opium suppositories. A few

drops of liquid may be allowed at stated intervals, provided there is no vomiting. The ice bag is to be used when there is any dissention. No enemas are to be administered; a rectal tube serving to remove the gases. Only when there has been neglect will it be found necessary to operate, which should be done when the following symptoms make their appearance: discrepancy between the pulse and the temperature, suppression of free enuresis, dry tongue, very frequent pulse and high temperature, and a change in the expression of the face showing a severe infection. Local symptoms, such as fluctuation, would naturally justify an operation, which is rarely done in Roux's service, since the physicians of the canton of Vaud have ceased to give purgatives. In a small number of cases, the diagnosis having been previously made, it has been found advantageous to operate in the first twenty-four hours. A death from appendicitis, in Roux's service, is rarely seen, though the operation *a froid* is carried out as a routine measure when the patient has recovered from the acute attack.

CANCER.

The following notes on cancer show the world-wide attention given to the cure of this dread malady. Though so often baffled physicians and surgeons are still determined to rob nature of this weapon against the life of man.

Lomer* contributes a very important paper on the subject of curability of cancer. He shows that many cases of cancer are cured by the actual cautery and by the electric snare, even when it is certain that all carcinomatous tissue has not been removed. Many cases recover to the great surprise of the operator who has applied the cautery only for the purpose of doing something. The instances show that under some circumstances cancerous tissues are taken care of by the body. Lomer also points out the occasional curative action of fever upon cancer, the growth undergoing retrograde metamorphosis during the course of an accidental infectious disease. The action of erysipelas, the injection of streptocci and infection by malaria could be classed among the febrile disorders which were apparently of benefit to cancerous patients, while severe burns and great loss of blood seemed to inhibit the growth of cancer. It is striking how well persons with carcinoma endure severe loss of blood and how, on the other hand, strong and vigorous individuals rapidly suffer from recurrence. Cancer is easily influenced in its cell structure, apparently, by deep changes in the blood like those mentioned. These considerations have led the author to experiment with a hæmolytic serum on which he is, however, not yet ready to report. The treatment, so Lomer thinks, will be that which will place the organism in a position to destroy cancer tissue left after an operation.

* *Zeitschrift fuer Geburtshilfe und Gynaekologie.*

Dr. Morestin* thus gives a description of his technique for removing cancer of the lower lip, an operation which is rarely carried out in a sufficiently thorough manner. The submaxillary glands should always be removed and a large portion of the lower lip. The incision should reach as far as the chin. Dr. Reynes, of Marseilles, operated last May on a woman presenting cancer of both breasts and performed Beatson's operation, or removal of the uterus and ovaries. A microscopical examination of the tumor was made by Cornil, who found it was a tubular epithelioma. A month afterward the mammary tumors had decreased noticeably in size; in two months the ulceration was healed. It is now five months since the operation was performed, and locally there is hardly anything apparent. The general condition is excellent. Dr. Doyen describes the effects which he has obtained in the treatment of cancer by using his serum. Out of eighty cases forty-eight were too serious when the treatment was instituted, and the results were negative. In thirty-two cases the results were favorable. It is true, however, according to Dr. Doyen, that twenty-two were operated upon and the treatment was purely preventive, and in only eight cases has sufficient time elapsed to justify considering them as cures. Ten cases, where no operation was possible, were ameliorated by the treatment. The method by which Dr. Doyen prepares his serum is still a secret and is only administered by those who obtain their supply from Dr. Doyen himself.

* *The Therapeutic Gazette.*

Skin Progress,

Under the charge of KATE C. WOODRULL, M.D.

THE TREATMENT OF CANCER,
LUPUS, AND OTHER MALIGNANT
GROWTH WITH CONCENTRATED
SUN'S RAYS.

O. U. Thayer more than thirty years ago commenced this form of treatment on diseases of the skin and its appendages. He has operated more than two thousand times with the concentrated sun's rays and has never noticed any permanent injury from them. No other remedy can compare with it as a curative power. Unlike other caustics and cauteries, it can be applied with perfect success to the most delicate membrane or tissue; the general system receives it kindly; the irritation and inflammation following its application are surprisingly slight and of short duration. The pain subsides immediately upon removal of the lens. Blistering is avoided as the tissues are carbonized. The morbid tissues, having less vitality than the normal or natural structures, succumb to the solar heat before the healthy tissues adjoining are injured. In the treatment of cancer and lupus, the remedy is at once safe and certain. Many less treatments are required than with the Röntgen rays; the cure is more certain, the wound remaining, heals sooner, and the skin is restored in great measure to its normal condition.—*Pacific Medical Journal*. Copied from *Medical Record*, November 7th, 1903.

X-RAY DERMATITIS AS INFLU-
ENCED BY IDIOSYNCRASY.

By A. D. ROCKWELL, M.D., New York.

While it is yet too early in the use of the x-ray to enunciate positive and unalterable rules of technique, yet to avoid injury and accomplish good several important points must be considered.

No one wishes to produce a violent dermatitis; yet it is the easiest thing in the world to do this, and occasionally it is not very easy to prevent it.

To be forewarned is to be forearmed, and the beginner in x-ray work ought thoroughly to appreciate the fact that susceptibilities to x-ray effects vary as widely as to other physical influences. We do not question the existence of idiosyncrasies in relation to the direct action of the sun's rays, to various external and internal methods of treatment, to psychical influences and even to the food we eat for the preservation of life. Nevertheless it has been frequently stated that idiosyncrasy is a negligible quantity in the use of the x-ray, both in diagnosis and therapeutics.

Unpleasant and unsatisfactory results are too often ignored in many an elaborate clinical report. Failures as well as successes, injuries inflicted as well as the good accomplished, should be frankly told.

In this way and in this way only can any medical or surgical procedure be perfected with conservation of the best interests of both physician and patient.

While the condition and position of the tube and the time of exposure are the essential features in x-ray treatment, yet, with every ordinary precaution cases are sometimes met which defy them all, and a violent dermatitis suddenly breaks forth.

As an interesting and instructive illustrative case I refer to a patient sent to me for x-ray treatment by Dr. V. B. Gibney. Miss M. had suffered long and severely from a constitutional tuberculous condition chiefly affecting the spine. Her pain and deformity had been greatly

relieved by orthopedic treatment, but subsequently the glands of the neck became permanently enlarged. With a tube of medium penetrating power and a shield protecting the surface surrounding the two enlarged glands, the treatment was begun January 27th, 1903. The distance of the tube was eight inches and the time of exposure five minutes.

This treatment was repeated on the 31st instant, and on February 3rd and 7th, resulting in not the slightest symptom, objective or subjective. A new tube of somewhat greater penetrating power now replaced the old one, and in order to bring the lower part of the face which was distinctly nodular and hard, within the field of exposure, the shield was dispensed with. On February 12th the treatment was of five minutes' duration, at a distance of six inches. February 15th, time eight minutes, same distance; February 19th, time ten minutes, same distance; February 24th, time ten minutes, distance four inches.

With the exception of some slight itching, no symptoms had been observed, but on the morning following the last application, an intensely active and painful dermatitis suddenly developed.

This did not go on to the stage of actual necrosis, but there was widespread destruction of epidermis associated with profuse watery discharge. The corium itself was evidently somewhat involved, so that when perfect healing took place after the lapse of two or three months, the new skin formation was distinctly lighter in color than the old, which was perceptibly tanned. It remains to say that even this brief treatment was more or less effective in reducing the local pathological condition. The deposits along the angle of the lower jaw entirely disappeared, while the glandular enlargements decreased perceptibly in size.

Aside from indicating a marked susceptibility to the effects of the x-ray, this case is a strong argument in favor of the cumulative theory of x-ray action.

In no other way, it seems to me, than by this combination of idiosyncrasy and cumulative action, can we explain the fact that after conducted x-ray exposures extending over a period of one month, with no preliminary symptom of itching or burning worthy of mention, a violent and persistent dermatitis appears with hardly a note of warning.

Although a number of slighter burns have occurred in the personal experience of the writer—and, indeed, in a large proportion of cases it is quite impossible to succeed without exciting more or less surface redness and irritation—this is the only case in which, with every ordinary precaution, there was so severe an after-result. However rare such cases are, yet they do occur with sufficient frequency to demand constant watchfulness. Better far prolong the treatment than to run even a remote danger of an actual necrosis.

Above all never fail to interrogate each patient as to any special idiosyncrasy, such as to sunburn, to ivy poison or to any external application. In a recent article on "The x-ray and the Finsen Light in the Treatment of Lupus," I alluded to a case of such unusual susceptibility that the patient was compelled to abandon x-ray treatment for the actinic ray of light.

In this case, even when no appreciable dermatitis was evident, the slightest exposure caused most unpleasant sensations of burning and itching. In that article, however, I neglected to say that this patient told of a susceptibility quite as marked to the influence of poisonous ivy. I afterwards learned that she had three times been poisoned in this way, and on two of

these occasions she had not even been in contact with the ivy leaves or vines.

I agree with Freund, that in every case, without there are most important reasons for haste, there should be an interval of rest after the first two sittings. I would suggest that these first two sittings be three days apart, with an interval of ten days before the third sitting, one week before the fourth, and four days before the fifth. If in one week from the last exposure, there is no severe reaction, it will, I think, be perfectly safe to give treatment every other day and perhaps daily.

This method may, to some, seem an unnecessary precaution; but if the usual precautionary measures, even occasionally, fail, unusual ones, while perhaps burdensome, cannot be called unnecessary.

The treatment of advanced malignant conditions is quite another matter. A burn, even of some severity, may be of small account relatively; but in simple uncomplicated skin affections of a benign character, a pronounced dermatitis of the second or third degree might be regarded as worse than the disease itself.—*Medical Record*, January 16th, 1904.

AN ANGLO-INDIAN MEDICAL OFFICER ON OPIUM SMOKING IN CHINA.

The explorations in China in 1900 of Colonel Manifold, Indian Medical Service, described in a paper read before the British Association on September 11th, brought him into contact with opium smoking and cultivation. The visitor's narrative confirms the statement about the extensive cultivation of the poppy in China; and it also shows incidentally, better than a laboured argument might do, *how very different the Opium Commission's Report would have been if the Commission had been directed—as it undoubtedly should have been—to carry on its inquiry and investigations in China instead of in India!*

At Teng-yueh, where he was detained by the desertion of the mule drivers who absconded with the mules, Colonel Manifold found at the Magistrate's yamên, Mr. Scott, of the Arracan Trading Company, who assured him that it was useless to hope to see the Magistrate before midday, as he was a confirmed opium smoker, and had never slept off the effect of the preceding night's debauch before a late hour.

Describing the province of Yunnan, Colonel Manifold says:—

It is very rich in minerals, which have as yet been worked by inadequate and primitive means. The present population will never do much, as their energy is sapped by the abuse of opium.

A long acquaintance with the uses to which the people of India put the drug had led me to believe it did little harm, and to be sceptical of the stories I heard of it in China. In India, where it is chiefly swallowed in small pellets and seldom smoked, taken in moderation as it is by the majority of those races given to its use, it is a valuable restorative, and does little harm except to those who become its votaries; and these are, I believe, infinitesimal in proportion to the numbers who make a reasonable use of its valuable properties.

In Yunnan I saw practically the whole population given up to its abuse. The ravages it is making in men, women, and children, are deplorable, and though entirely out of sympathy with the violent views of faddists, and the extreme measures they would resort to in India, I was quite able to realise that anyone who has seen the wide abuse of opium in Yunnan would have an abhorrence of it that would lead them to take exaggerated views of the harm it did elsewhere. In Yunnan I felt that any measures would be justified that would save an intelligent and civilised population from being wholly demoralised in physique and energy, and from being ultimately extirpated by the fatal abuse of a valuable drug.

—From *Britain's Opium Harvest*, December, 1903, p. 34.

The China Medical Missionary Journal.

VOL. XVIII.

APRIL, 1904.

No. 2.

Editorial.

"CHIEF AIM, QUANTITY OR QUALITY?"

We have been much interested to note the effect produced by the above question which occupies a small space in the statistics blanks issued by the JOURNAL in January. The question has been freely criticized and from various standpoints, more so even than we hoped, though not more so than we are glad of; and the answers to the same are very suggestive.

The question was not asked with the distinct object in view of making a disturbance, though it will be remembered by some that we said in our last issue that "a little wholesome abuse would be welcome" if it should but represent a lively interest on the part of our readers in JOURNAL matters. Nevertheless, we are happy to say that such has been the result and that we have been for the past month or so gratified by the fulfilment of our desire. We have received considerable kindly and wholesome and very interesting "abuse."

The first comment was made by one of our fellow-officers of the Association, who mildly inquired the why and the wherefore, for, as he said, No one will say—"Quantity—and the question may provoke criticism." He was almost right in both these surmises.

Let us begin by confessing that the question is ambiguous and, evidently, capable of numerous interpretations. This is simply a fact proved by the variety of reactions it has produced. Some few have taken it to be an attempt to call out an expression of the force which moves every medical missionary to undertake his life work and express the same in no uncertain terms, adding in some cases that they fear that the wording of the question "may give very wrong impressions when the statistics are compiled." The answers of these read "CHRISTIANITY, be it one or other or both," or "The spread of the knowledge of Jesus Christ," etc.

We were not, however, trying to obtain statistics on this point. No statistics are needed. The facts are known. Persons with any other CHIEF AIM do not become medical missionaries, or if they do they do not stay such.

Nor did we even mean Quantity or Quality as applied to the evangelical side of our work, though there are some Christian bodies and individuals who do place rather too much stress on church statistics.

The question was asked with no other thought in mind but that from our professional standpoint as physicians. (We have admitted the ambiguity.) It lies between two very mundane questions and belongs to this lower order. It does not even seek for a declaration concerning our views on the relief of suffering or the question of life saving. It seeks only an expression of practice concerning the relative importance of quantity of medical attendance and quality of the same. There is a vast difference of practice on these points, both at home and in the mission field. We all know that this is true. And we inserted this question because, *professionally speaking*, we believe it is the MOST IMPORTANT QUESTION OF ALL. We do not believe it matters at all for the future of China what our names are, nor what our Mission happens to be called. It matters very little in the long run whether we see five hundred or a thousand patients in a month, but it does matter for now and for all time whether or not the practice we establish here in China is mediocre or excellent, diluted or pure, sciolism or science. The foundations we lay will not be dug up in centuries. Let us then dig deeply and build solidly, even if slowly.

But why ask the question if no one will answer "Quantity"? Perhaps there are none in China to whom large figures are of too great importance. May it be so! Some have answered "Quality" without hesitation; others, very likely through modesty, have answered nothing; still others have said "Both," but, and this is the reason we took the liberty of inserting the question, ALL have faced the question and must answer it one way or the other in their hearts. Of those which clearly caught our meaning the most excellent answer so far comes from the south, and reads: "Quality; certainly could nearly double the quantity at sacrifice of quality." That is the professional spirit for which we plead.

THE COMING MEETING OF THE ASSOCIATION.

We would direct the earnest attention of all members of the Association to the President's call for a general meeting of the Association to be held in Shanghai during next China New Year season. The preliminary meeting which took place in Shanghai last week and at which it was decided unanimously that a general meeting should be held as now ordered, was attended by as many members of the Association as could be gathered together at the time and, as said, there was no dissenting voice. There was not even a difference of opinion expressed as to the proper time and place for the holding of the meeting. At that time the exact days were not settled; the matter being left in the hands of the committee in charge of the arrangements, but this date has now been settled—namely—three days, beginning Monday, February 6th, 1905.

Nothing definite has yet been arranged in regard to the programme, but it will be the endeavour of the committee to prepare so good a feast as to make it well worth any member's while to come from the confines of China to partake thereof. It is purposed to make the programme a distinctly practical one and such as will bear as directly as possible upon China.

Please make large notes of the dates and do your utmost to keep the same open. Make no other engagements and no excuses, but fix things so that you may be in Shanghai at the time. The committee cannot undertake the question of travelling expenses, but will count it a privilege to arrange for the putting up and entertainment of all members who will give due notice of their purpose to attend this meeting. The Chairman of the Committee on Arrangements is Dr. H. W. Boone, and all communications, suggestions, questions, etc., in connection with this subject, should be addressed to him, 4A Minghong Road, Shanghai, or to the Secretary, Dr. W. H. Jefferys, 4B Minghong Road, Shanghai.

STATISTICS.

The answers received up to date have been extremely satisfactory, and if the present rate keeps up we shall have something as the result of the blanks issued with the last JOURNAL. So far about fifty out of some two to three hundred possible answers have

reached us, not much you say, but enough to be of some use. If we can hear from as many as one hundred we shall be doing well. Please answer if you have not already done so!

The writer of "Some Methods of Medical Evangelism," which appeared unsigned in our last issue, was Dr. W. H. Dobson, American Presbyterian Mission, Yeun-kong, viâ Canton.

THREE LETTERS.

The JOURNAL is recently in receipt of three letters, forwarded to it by friends in China, which have more than a passing interest for us as medical men. The first two are from Mr. A. C. True, Director of the Experiment Stations of the United States Department of Agriculture; and Professor W. O. Atwater, Ph.D., of Wesleyan University, Special Agent in Charge of Nutritive Investigations in the same department.

They desire to secure data in regard to the diet of the Chinese and the nutritive value of that diet, especially rice and such other cereals and vegetables as in most sections constitute the staple articles of food. Any assistance that members of the profession or others interested in these lines of investigation may be able to supply, will be most gratefully received.

Some blanks and dietary note books, together with one hundred copies of Farmers' Bulletin, No. 142, Principles of Nutrition and the Nutritive Value of Food, by Professor Atwater, have been sent to Prof. C. M. Lacy Sites, of the department of Political Science, Nanyang College, Shanghai, who will be glad to forward them to any who are interested and are willing to assist in such investigations.

The third letter which comes closer to us professionally is from Dr. J. O. Cobb, of the Public Health and Marine Hospital Service, and asks for information in regard to the spread of tuberculosis through the medium of infected food and for other data. Asking for information he says: "Is it true that the Chinese cooks in kneading dough, supply the necessary moisture as they do in laundry work by taking water into the mouth and spraying it upon the work? If this be true, might it not be an important factor? In the making of bread the subsequent cooking would, I suppose, entirely destroy bacilli, but the same practice may be pursued in

making other foods that are not cooked or only partly. The opium pipe is passed from mouth to mouth, which might prove another source of infection through the alimentary tract."

In an article by Dr. Cobb in the *New York Medical Journal* of October 3rd, 1903, entitled Sources and Methods of Infection in Pulmonary Tuberculosis, he quotes statements on the subject kindly furnished him by Doctors Peck, Gatrell, Boone, and Macklin, through Mr. E. T. Williams, of the American Legation.

It seems as if much more extensive and valuable information might be obtainable if the profession would only take the trouble to record or investigate certain cases that come into their hands. The Editors well know what a busy life the average missionary physician leads in the multitude of his duties and with inadequate assistance which leaves him little or no time for investigation or even for writing for the JOURNAL.

In the great mass of pathological material such as one finds only in a densely populated country in which medical science, though old as the country itself, has not yet outgrown its cradle, most interesting and instructive cases are lost to sight or forgotten by the overworked practitioner. If any of the profession in China have or can obtain any data on this line which they are willing to put into circulation, they would confer a great favor on the profession at large.

If they will send any data on the subject to Dr. Lincoln he will be very glad to forward it to Dr. Cobb, who will be only too glad to give due credit to the sources of his information. He says in closing his letter: "I quite realize that I am asking much of you, and the only way I can excuse myself is that I feel that when such good work for humanity is to be done, much can be expected of you."

A CALL FOR A GENERAL MEETING.

A meeting of members of the Medical Missionary Association of China, who happened to be in Shanghai, was held on Tuesday, the 1st of March. The President, Dr. Neal, took the chair; Dr. Jefferys acted as Secretary. After some discussion it was resolved to hold a general meeting of the Association at Shanghai, beginning Monday, February 6th, 1905.

The President appointed as a local committee Drs. Reifsnyder Jefferys, and Boone, and they were empowered to make the necessary arrangements.

The meetings will be held for three days.

Members who wish to read papers at the meeting will please notify Dr. Jefferys at least three months beforehand, stating the subject chosen and other particulars. Members who wish to attend the meeting will please notify the Secretary, Dr. Jefferys, at least one month beforehand, in order that arrangements may be made for the entertainment of as many as we can find accommodation for.

Members who have been elected to read papers at the meeting will be duly notified by the Secretary, and they will receive definite information from him.

It is very important to have a full meeting of the members, and it is hoped that much good will be derived from the deliberations.

H. W. BOONE, M.D., *Chairman.*

E. REIFSNYDER.

W. H. JEFFERYS, *Secretary.*

ELECTION OF OFFICERS.

CONSTITUTION OF THE C. M. M. A.—ARTICLE V.

The Officers of the Association shall consist of a President, a Vice-President, a Secretary, a Treasurer, an Editor, and a Curator of the Museum, all of whom shall be elected biennially by a majority of the Members voting. No Member shall be eligible to the office of President for two successive terms. These officers shall have the power to elect executive committees from their own body, or from other active members of the Association, to fill up any vacancies (caused by death or otherwise) in the executive of the Association, and to take initiative action in all matters affecting the welfare of the Association.

The following Nominations have been made to serve as officers of the Association during the years 1905-6 :—

President.— D. CHRISTIE, Moukden.

Vice-President.— J. M. SWAN, Canton.

Secretary and Treasurer.— R. T. BOOTH, Hankow.

Editors.—

Curator of Museum.— C. S. F. LINCOLN, Shanghai.

PRESIDENT'S LETTER.

The attention of members of the Association throughout China is particularly called to the Official Notice in this issue of the coming meeting of the Association in Shanghai next winter. This action was decided upon after consultation with the members of the Executive Committee, which is composed of the officers of the Association and with other members who were within reach. As will be seen by reference to the Correspondence columns, the local branch of the Association in Soochow has asked that a meeting be arranged for during the time of the General Conference of Missionaries, and thereafter at intervals of two or three years. As the next General Conference will not be held for three years, and as there are a number of questions pressing for decision in connection with our medical missionary work, it was thought best to call a meeting within the next year, with the expectation that at the time of the General Conference in 1907 another meeting may be held, after which possibly we may decide to hold either biennial or triennial meetings. Drs. Boone, Reifsnyder, and Jefferys have kindly consented to act as a local Committee of Arrangements in Shanghai, and to them, or rather to Dr. Jefferys, who will act as Secretary of the Committee, all suggestions as to subjects for discussion, etc., should be sent at as early a date as possible. The Committee will welcome any suggestions whatever which will be likely to add to the interest and increase the benefit to be derived from the coming meeting. It is earnestly hoped that every member of the Association will bear this meeting on his or her heart and will not only plan to be present at it, but will do everything possible to make it a success. It will have been nearly fifteen years since the last meeting in 1890, by the time we get together again, so there should be no lack of subjects for discussion.

Membership of the Association.

In this connection may I suggest that a united effort be made to enroll every medical missionary in China as a member of our Association within the next few months, so that we may present a united front when we next meet, and may be able to show clearly what a force the medical missionary body is in China, scattered though it is over this vast empire. It might be well to remember

too that every fresh recruit means so much added to the income of the Association, through the annual dues of three dollars, which includes the subscription to the JOURNAL, thus making it possible to undertake work which would otherwise be impossible for lack of funds, such for example as the publishing of a dictionary of medical terms in Chinese, which will be needed as soon as the terms are definitely settled.

Nomenclature Committee.

This Committee has been at work in Shanghai during the past five weeks, and has pretty well completed the remaining lists, consisting of terms for Medical and Surgical Diseases, Eye and Skin Diseases, Gynecological and Obstetrical terms, and lists of Surgical Instruments and Operations, and has made plans for the Materia Medica terms. All the above lists, it is hoped, will be ready for distribution within a few months, and it is earnestly hoped that those who are specially interested in the formation of a uniform vocabulary will give particular attention to these terms and be prepared to criticise them at the meeting of the Association next winter. So far, with the exception of one man, there has been little criticism of their former list of terms in Anatomy, Physiology, etc., published in 1901, sent in to the Committee, so that it is very difficult to know whether or not their work meets the approval of the Association. At the coming meeting one of the most serious matters of business will be the reception of the report of this Nomenclature Committee and the determination of what shall be done with it. It should be clearly understood that the lists published in 1901 and again this year are issued for criticism, and are by no means final or authoritative until passed upon by the Association and adopted as its own.

Forthcoming Medical Books.

Those who are interested in the training of medical students will be glad to know that Dr. Whitney is steadily at work putting his new translation of Gray's Anatomy through the press, and that Dr. Cousland is also publishing a new and much-needed Physiology, a translation of Halliburton's Handbook of Physiology (formerly known as Kirke's). Both these translators are using the new terms published by the committee in 1901, so that members of the

Association who may wish to test the new terms in actual use could not do better than order copies of these books as soon as ready and try them in the teaching of their medical students.

Dr. Ingram, of Tungchow, near Peking, is also preparing a new Therapeutics, a translation of Hare's well-known book, in which the new terms will also find a place, and finally Dr. Gillison is about to issue the first volume of a new Chemistry, which will embody the chemical terms as determined by the Committee of the Educational Association and the Committee of the Medical Missionary Association acting together. What we urgently need just now is a fresh revision of Kerr's Practice of Medicine, brought down to date (or else a perfectly new translation of a good Practice) and a new Surgery to replace the poor books which are now out of date. Dr. Main is said to be preparing a translation of Caird and Cathcart's Surgical Handbook, which will be most useful for practical work, but in addition we should have a more elaborate book for systematic teaching.

Would it not be well for any who may be already engaged in the translation of medical books, or who are contemplating doing so, to communicate with Dr. Cousland, Chao-chow-fu, Swatow, the Secretary of the Nomenclature Committee, so as to prevent overlapping in such work?

J. B. N.

SHANGHAI, *March 5th, 1904.*

Correspondence.

The Executive Committee has *Report of the C. C. M. M. A. for year 1903.* much pleasure in submitting the following Report of the work of the past twelve months, and takes this opportunity of congratulating the Society on another year's successful effort.

With the memory of the past to stimulate, and with a good programme to look forward to, the year was started full of hope and in anticipation of much profit and pleasure. No anticipation of any break in our circle darkened our outlook, as for some years the circle of members had been unbroken, save by necessary furloughs. Now at the close in reviewing the year we have with sorrow to record two breaks in our circle: one, thank God! but temporary; the other, alas! permanent. Early in the year, ere three months in office, our President, Dr. Huntley, was stricken with pleuro pneumonia, which went on to empyemia, laying him aside completely from his work, and so preventing him from fulfilling the duties of his presidential office. After some twelve weeks of anxious watching, we rejoiced in seeing him sufficiently restored to undertake the home voyage to England, where he arrived in August, completely restored to health and strength. We look forward to his return in the near future, and trust that he may be enabled to spend many years of useful work in our midst.

Later in the year, when, fresh from the cool heights of Kuling, we reassembled in our meetings, Dr. Margaret E. Bennett met with us in what seemed to be her usual health. We little thought that on the following Wednesday morning

we should, with saddened hearts, carry her mortal remains to their last resting place, and standing by the open grave commit them to its keeping in the sure and certain hope of the glorious Resurrection. Seized with some severe form of toxic enteritis, in spite of all that skilled attention and loving care could do, she passed away on October 6th, entering within the veil to join Him, whose footsteps she followed and whose example she loved. Snatched away thus from our midst in the prime of life and fulness of work, we fail to understand the reason, and can but trust Him who has permitted it. We embody in our Report the resolution so suitably and thoughtfully sent by you to her sorrowing relatives: "The members of the Central China Medical Missionary Association desire to place on record the great loss we have sustained by the death of Dr. Margaret E. Bennett, of the Wesleyan Mission, Wuchang. We feel that we have lost a highly esteemed and most conscientious colleague, a regular and appreciative attendant at our meetings and an earnest co-worker in the missionary cause. We would further desire to tender to her family and her Mission our sincere sympathy in this great trial, and in the fact that her work just opened with such promise of success has been suddenly hereft of its beloved leader."

May her memory be ever fresh with us, and may her example ever stimulate us to renewed effort in the Master's service.

While such occurrences as the above not unnaturally threw a shadow over us as we met from fortnight to fortnight, we rejoice

that the work accomplished during the year has not been in vain. Our fortnightly reunions have continued to bind us more closely in brotherly love and unity, and the social aspect of our gatherings has not been the least attractive feature of them. Our efforts along the line of union have, during the past twelve months, received a fresh impetus from the action of the medical missionaries assembled in Conference at Kuling in August. The scheme for a Central Union Medical School to be established in this centre (Hankow), which was initiated at that Conference will, if carried to a successful issue, throw upon us in this centre much honour and responsibility. Only in true union can we undertake such responsibility and accept such honor. So your Executive Committee would urge more earnestly than ever, that you cease not in your efforts to attain such unity of thought and purpose.

Through no fault on your or your committee's part, we have to report failure as regards the memorial to the Consular Body in Peking, asking that body to approach the Chinese government as to the possibility of remitting duties at present levied on hospital stores. A petition, signed by some 230 medical missionaries in China, was forwarded in July through the British Acting Consul-General at Hankow. In October the response came, and we are grieved at having to announce that for the third time failure has attended efforts made to attain this worthy end.

We are pleased to be able to announce progress in the matter of the Manual of Nursing. Unexpected delays have occurred and prevented the book being published this year. It is hoped that early next year the book will be issued by the S. D. C. K., Shanghai.

Your programme for the past year had to undergo some altera-

tions owing to unforeseen circumstances. Dr. Huntley's illness and subsequent furlough prevented him fulfilling his promise to give us a paper on "Native Medicine and Surgery, and some of their Sequelæ." Dr. Davenport kindly filled the gap with a paper on "Heart Disease." The paper on "Leprosy," to which you had looked forward, anticipating a repetition of former pleasure and profit, was unfortunately, owing to stress of work, unable to be completed in time. Dr. McAll in its place gave us a paper on "Necrosis." With these exceptions your programme has been fulfilled, and in looking at the list of subjects dealt with, your committee feels that as a Society you are to be congratulated on such a year's work. The following subjects were dealt with. In debate were discussed such important matters as "Venereal Diseases," and "Anti Opium Poisoning," while papers were read dealing with such varied subjects as: "Experiences in Abdominal Surgery," "Chinese Medical Phrases and their Significance," "Conservative Surgery of the Limbs," "Children's Diseases in China," "Chinese Dietetics and their Possibilities," "Recent Advances in Ophthalmology," "Heart Disease," and "Necrosis."

It would be invidious to single out one paper or discussion more than another for remark. Suffice it to say that one and all were practical and of great use to the members. In all eight papers were read and two debates held at ten meetings. There were five clinical meetings and one annual business meeting. The average attendance, without visitors, was 7.06; including visitors, 7.33; the lowest attendance being five and the highest being nine.

At the Chinese meetings, five in number, and at the ordinary meetings numerous cases were exhibited,

either as cases of interest or for help in diagnosis. Some sixty cases were thus shown, and some twenty specimens,—macroscopic and microscopic—were from time to time exhibited. We specially mention three cases as being of more than ordinary interest: (1). Dermoid of testicle. This specimen is now in the Museum of the Royal College of Surgeons, England, and Dr. Bland Sutton is writing a special article on it. (2). Multiple false neuromata, situated on fifth right cervical, twelfth left intercostal, left radial and external popliteal and tibial nerves. (3). Odontoma of a lower molar tooth. The three elements—dentine, enamel, and cement—had been proved to be present by a specialist.

Under your auspices a conference was held at Kuling during the month of August. On the success of that conference you are to be congratulated. Four important topics were dealt with: (1). Asepsis and Antisepsis. (2). "The Microscope as an Aid to Diagnosis." (3). "Union Medical School Scheme." (4). "Methods of Medical Mission Work."

During the year at your meetings you have had the privilege of greeting visitors from other parts of this great empire, engaged in the same glorious work as yourselves. Dr. Young, of Manchuria, paid one visit, and Dr. Hewitt, of the C. I. M., on his way to open up work in Kansu, spent some time in your midst. We all welcome such opportunities of entertaining our fellow-workers, so promoting fellowship and brotherly feeling.

In concluding the report, your committee feels that some expression of regret should be made at the approaching departure of Dr. Sydney R. Hodge, of the Wesleyan Mission. One of the founders of the C. C. M. M. A., a past President of the C. M. A., and past Editor of the

M. M. JOURNAL, he has since the institution of the C. C. M. M. A. striven to further its interests and increase its usefulness. We shall miss him during his absence, and trust that this be but a temporary farewell to our circle. Our earnest wish is that his furlough may restore physical vigour, and we pray that his advocacy of missions in general, and of medical missions in particular, may be greatly blessed.

We close our Report in the hope that the coming year may be brighter and happier than this, and that no cloud may arise to darken the brightening horizon. Come what may to us individually or as a body of missionaries we trust that our work, which is His work, may never get any set back or reverse because of unfaithfulness on our part.

Signed on behalf of Executive Committee,

CECIL I. DAVENPORT,
Vice-president.

R. T. BOOTH,
Hon. Secretary.

DEAR DOCTOR: Replying to your favor of some time ago, I give below a few recipes which we use here, none of which are original:—

R. 1. Alum	...	...	5 parts.
Acetate of Lead	...	25	"
Mix. Water	...	500	"

Apply locally in cellulitis as a wet dressing, adding more of the solution when dressing becomes dry. Should be made fresh, and need not be filtered. Especially useful if used in combination with Recipe 2.

R. 2. Carbolic Acid ... 95 per cent.

Apply locally to the skin by means of a swab of cotton in cellulitis or phlebitis, neutralizing with alcohol when the skin begins to turn white. It is equally good to cleanse foul ulcers when used in the same manner, and is said by the

late Dr. Phelps, of New York, to be a specific in erysipelas. Its caustic action can be perfectly controlled by alcohol.

R. 3. Liq. Ferri. Perchlor... B.P. m. v.-x.
 Liq. Strych. Hydroch-
 lor. ... B.P. m. iii.-v.
 Aquæ. qs ad. ... 1 dram.

A convenient cheap tonic. Useful for patients breaking off opium habit.

R. 4. Ung. Zinci Oxidi... 1 ounce.
 Rhei Pulv.... 1 dram.

Useful in eczemas, especially the so-called parasitic eczema of the leg.

R. 5. Oil of Eucalyptus... 48 grains
 " " Wintergreen 36 drops.
 Thymol ... 60 grains.
 Menthol ... 10 "
 Boric Acid ... 3 ounces.
 Dissolve the above in
 Alcohol ... 1 pint.
 And add
 Water ... 7 pints.

A cheap substitute for "Listerine." Add one or more parts of water when using for mouth wash, gargle, or spray.

The above Recipes may or may not serve your purpose; at any rate they are perhaps the most useful ones we call to mind for use in China.

I was much interested in your lumbricoid case. I think the consensus of expert opinion is that the eggs produced by the worms in the body do not develop in the body, but require to mature outside. Dr. Booth claims to have seen the lumbricoid worm moving in the shell also coming out of it, but in spite of the doctor's recognized ability, I am inclined to think that he mistook the egg of the ankylostomum duodenale for that of the lumbricoid. I have watched the former hatch, but have never seen any signs of life in the egg of the lumbricoid. It is possible that Dr. Booth's patient swallowed and passed eggs of the lumbricoid that had matured outside the body.

Yours truly,

O. T. LOGAN.

LONDON MISSION,
 HANKOW, March 5th, 1904. }

DEAR EDITORS: I am writing about

Drugs from Japan. a matter which affects hospital economy and on which some reliable

information would be of very great service to many of us medical missionaries in China. In such a matter I know we have your sincere sympathy, and I trust you will be able to help us through the pages of the JOURNAL. We live here next door to Japan, where medicine and surgery have made such tremendous strides within recent years, and where there now are a number of firms who supply medical and surgical apparatus. Reference was made by Dr. Woodward in a recent number of the JOURNAL to the fact that he had got from Japan much cheap and efficient apparatus for his operating room; and it will probably be possible in other things such as ordinary instruments and drugs to save considerably by dealing with Japanese firms. It is when one attempts to do so that difficulties occur; the catalogues of the Japanese firms are (some of them at all events) in a mixture of Japanese and Chinese character, and it is extremely difficult to make out the article and the price.

It would be an immense boon if information could be obtained (1) as to what good firms there are in Japan who publish English catalogues of the drugs and instruments they supply, and who are willing to send these catalogues to us in China (2) as to other good firms who have no English catalogues.

If there are no firms publishing English catalogues then we would be glad to hear the prices of some typical drugs and instruments that the other firms can supply (e.g. mag. sulph., sulphur, potass iodid., quinine sulph. and instruments such as scalpels, artery and dressing

forceps, scissors, ligatures and many other drugs and instruments constantly used by all of us).

How this information can best be obtained, whether through Japanese missionaries or by dealing with the firms direct or otherwise, I leave to you. The point I would emphasize is this, that if you can put us in the way of getting good drugs and instruments from Japan at a lower figure than we are at present obliged to pay at home, you will very materially help in the efficiency of our work and the welfare of the cause that we have at heart. Information on this matter, published in the JOURNAL, will be a very great boon to us all. Hoping that you will see your way to take the matter up and assuring you in anticipation of our united gratitude for such help.

I remain,

Yours truly,

P. L. McALL.

[NOTE: The questions raised in this letter are most practical. We shall try to have it fully answered by one who knows, in our next issue.—EDITORS.]

SWEDISH MISSION SOCIETY, }
SHASI, February 9th, 1904. }

DEAR EDITORS: Hereby I send you a short statement concerning my medical work during the last year:—

Out-patients	{ New	...	2,528
	{ Old	...	2,961
In-patients...	...	...	190
			5,679
Income from patients			\$263.53

Please don't put me down as a doctor. I am only a minister, and that has prevented me from sending any report for the JOURNAL. If it had not been for what you wrote in the No. 4 for last year I would not have mentioned my medical work.

I feel pretty sure that when you wrote about sending reports, you did not think of missionaries like me. To be sure I send you this note, which very likely has its proper place in the paper basket. In medicine I have got some working knowledge, besides some special instruction in eye operation, dental work and tropical medicine, having received the last when taking a course at the School of Tropical Medicine, London.

I am, Dear Sir,

Your faithfully,

ANDERS P. TJELLSTROM.

CHINA INLAND MISSION,
IAO-CHEO-FU, KIANGSI, }
Dec. 28th, 1903. }

DEAR EDITORS: I am sorry that it has been necessary for our President to remind us of our thoughtlessness with regard to the Medical Nomenclature. Surely with most if not all of us the slowness in writing to the Committee about the matter has been due, not to lack of interest, but because we feel our inability to improve on their work, or hope that after some months' use we may be able to offer better suggestions than we can now.

If published and *uniformly adopted*, even as they stand, the result would surely be better than the mixed nomenclature we have to use now. We wish them speedy success, and hope the editors of new books and new editors will show their appreciation of this committee's labours by uniformly adopting their terms—at any rate till better ones are agreed upon. If they are in need of funds please say so, and we will do our best to supply them.

Yours sincerely,

FRED. H. JUDD.

LONDON MISSION,
T'SANG-CHOU, VIA TIENTSIN, }
February 1st, 1904. }

DEAR EDITORS: By same post I send you a report and account of our first year's work in the Roberts' Memorial Hospital. This was built in memory of Dr. Fred. Roberts, late of Tientsin, by members of his family, and was just completed in 1900 in time to be destroyed by the Boxers. The Roberts' family again subscribed the funds for its rebuilding in 1902, and last February it was opened with a great local demonstration of goodwill. It has been a busy year, and our prospects are very promising. I enclose a rough list of operations done, etc., and with all good wishes

Remain,

Very sincerely yours,
ARTHUR D. PEILL.

P'ANG-CHUANG, VIA T'CHOU, }
February 12th, 1904. }

DEAR DOCTOR: May I trouble you to write me a word as to whether the Medical Association has advised the use of any special form of record keeping or statistics? Possibly some recent number of the JOURNAL has note of such, but I do not recall it, and, as with the new Chinese year we take more active charge, it would be as easy for us to use such suggested form as any other, besides thus using the experience of those long in the service here. Having had a sufficient dosage of keeping records in a hospital in America, I am of course anxious to waste less time in such a way here, and record only what seems likely to be of ready use.

Thanking you in advance for referring me to some source, or briefly outlining a plan that has received the endorsement of a number.

Perhaps "Medical Mission Statistics" just sent out (blanks) is what I might follow to advantage. There is a *muchness* in this for a busy M.D.

Sincerely,
F. F. TUCKER.

NEW YORK, December 7th, 1903.

MY DEAR SIR: You will, I am sure, in common with us, be interested in a project we *Memorial* have undertaken for a Memorial to Dr. John G. Kerr. The enclosed circular letter and accompanying pamphlet will more fully explain our plans and prospects.

We shall be glad of your kind co-operation in this matter through the pages of the MEDICAL MISSIONARY JOURNAL, or in any other way that occurs to you. A few friends have given \$200 to start the fund, and while we can build and furnish a cottage for \$1,500, we would like to build a more substantial one for \$2,500. You will be interested to note and possibly inform your readers of "Mountain Rest" its purpose, etc. We hope many of our medical and other missionaries will come there and "rest awhile." A hearty welcome awaits all comers in the Master's name and service.

Sincerely yours,
GEO. D. DOWKONTT.

MEMORIAL COTTAGE TO DR. JOHN
G. KERR, OF CHINA.

NEW YORK CITY, December, 1903.

DEAR FRIEND: As a member of the Presbyterian Church, to which we also belong, you will doubtless be much interested in the contents of the enclosed pamphlet, telling of Mountain Rest for missionaries.

The International Medical Missionary Society, of whose Board of Trustees we are members, offers to our denomination the privilege of sharing in the benefits of the gift which has come to them, by placing on their grounds a Kerr Memorial Cottage, comprising two stories and ten rooms, at the small cost, including furnishing, of \$2,500.

Dr. Kerr went to Canton in 1854, and died at his post after forty-eight years of heroic and successful service. His widow has returned to her native land alone, and the Society would like to have her be the first to occupy a room in Kerr Cottage next summer.

Will you not therefore kindly aid in this by sending a gift to either of the undersigned, or to the Treasurer of the I. M. M. Society, Dr. J. Edward Giles, 288 Lexington Avenue, New York City.

Trusting to have your kind co-operation in this movement, we remain,

Yours in the service of our one Master,

Committee: { A. W. HALSEY.
ALBERT B. KING.
CHAS. R. ERDMAN.
EDWARD A. JONES.
SILAS F. HALLOCK.

PHILADELPHIA, PA., Jan. 1, 1904.

DEAR DOCTOR: I have the copy of

Intestinal your MEDICAL JOURNAL with notes on fur-
Parasitism. niture of your dispensary, where I observe that you re-

member some of the things you have seen in Philadelphia. I also see the paper on a peculiar case of ascaris lumbricoides in which you make some very interesting points. In regard to the symptoms, I have long since concluded that to assume any definite train of symptoms as characteristic of any form of intestinal parasitism only causes confusion and mistakes. I have now under my care in the University Hospital a young woman from Syria, who has a degenerating taenia saginata and whose symptoms are those of tetany alone. I shall report this case. I recall a case of ascaris lumbricoides which occurred in an adult and in which the symptoms that called attention to his illness were those of an acute tonsillitis. The prompt subsidence of the symptoms which had been slowly developed and rather obstinate after the administration of remedies which dislodged the parasites convinced me that intestinal intoxication was operative.

Sincerely yours,

ALFRED STENGEL.

SIANG-TAN, HUNAN, }
March 5th, 1904.

DEAR EDITORS: You kindly send around these statistical blanks. I have done my best to fill it out.

You see I have just been transferred by our Board from Hainan to Hunan, and from No-doa to Siang-tan.

I have only three months to write on, but would like to be represented since we have rented and opened a made over Chinese house, have put boards on floors, bought beds and have started in.

Am having trouble about getting a Chinese trained assistant. Do you know where a fully or partly trained one can be had? I trained one in Hainan thoroughly, but as he does not speak Mandarin, had to leave him behind. The one I have been having here is no good.

When Dr. Neal was editor, I managed to send up something for the JOURNAL, once in a while. I hope to do so again when possible.

Wishing you God speed in your work, I am,

Very sincerely yours,

ERNEST D. VANDERBURGH.

SOOCHOW, February 5th, 1904.

MY DEAR DR. BEEBE: At the last meeting of our Soochow Medical Association the subject of a general medical conference for China was brought up again, and the Society asked me to write you about the matter.

May we request you, as secretary, to convey to the President of the Medical Missionary Association our earnest desire that such a conference be arranged for the time when the General Missionary Conference is called?

I believe it is the desire of most or all of us that after that occasion

regular meetings should be held every two or three years; but that matter would naturally be settled at the first conference.

Very sincerely yours,

MARY ELLIOT FITCH.

CANTON, *February 3rd, 1904.*

DEAR DOCTOR: I am in Canton for a vacation. I brought an insane man to Dr. Kerr's Refuge, the husband of one of our Christian women. Dr. Selden, who has charge now, certainly deserves the thanks of the profession and the laity as well for his self-denying work. It is the only place where such unfortunates can be taken care of. We were at our wits end to know what to do with this man and were so thankful that Dr. Selden was willing to receive him.

Sincerely,

KATE C. WOODHULL.

MISSION HOSPITAL,
CHING-HOA, FORMOSA, JAPAN, }
March 3rd, 1904.

DEAR EDITORS: I was much interested in reading Dr. *Hernia*. Hill's article on Strangulated Hernia in your January number.

Hernia, generally inguinal, is very common in Formosa among the Chinese, and I have seen a very large number of cases since I came here eight years ago. The subjects of hernia often complain that they have occasional severe attacks of pain, accompanied with tenseness and irreducibility of the swelling; but somehow or other it seems nearly always to get better, sometimes after a dose of native medicine. The pain passes off, the swelling becomes less tense and the patient succeeds in reducing it. I have,

however, come across two cases of strangulated hernia: one presenting a condition which, as Dr. Hill remarks, seems to be very rare, namely a large fæcal fistula in the scrotum. Unfortunately this latter case proved fatal. The patient was a man about forty years of age, who was brought to me about a fortnight after his strangulated hernia had burst. Owing to tight constriction at the ring, the patient suffered a great deal from griping pain when the intestines contracted strongly in their efforts to drive the fæces past the obstruction. The ladder pattern was very well marked on the abdomen at such times. The man was a good deal emaciated, but he was eager for an operation on account of the pain and discomfort. I may say that all the fæces for a fortnight had been passing by the fistula and none by the anus, so that it was rather a case of artificial anus than of fæcal fistula. The operation consisted in cutting down and opening the sac, dividing the constriction at its neck, freeing the bowel where it was adherent to the sac, especially about the neck, and drawing it down till healthy bowel was reached. The fistulous opening in the bowel was large, and it was necessary to remove four inches or so of bowel with a triangular portion of mesentary. The divided ends of the bowel were then united by a Murphy's button and returned to the abdomen. The patient suffered somewhat from shock after the operation, and his pulse continued feeble. He had very little pain in the abdomen and there were no signs of peritonitis, but sickness and hiccough became bad and he gradually sank and died on the fifth day after operation. After his death I got the consent of the relatives to open up the wound and remove the Murphy's button. On examining the small part of the bowel which

I took away with the Murphy's button I found that union was perfect for about a third of the circumference of the bowel in the part nearest the mesentery where I suppose the blood-supply was better. In the remaining two-thirds the union was gangrenous.

Perhaps I should have removed more bowel at the operation, as the ends of the bowel united by the Murphy's button were much congested.

My other case of strangulated hernia occurred in an infant; but it was reduced when the child was

put under *chloroform* preparatory to operation.

Yours sincerely,

DAVID LANDSBOROUGH.

The following contributions have been received for the Medical Nomenclature Committee's expenses:—

Rev. Edward M. Scheirer	\$5.00
Mrs. E. C. Machle	... 5.00
Rev. Rees F. Edwards	... 5.00
From one interested	... 2.00
	<hr/> \$17.00

ROBERT C. BEEBE,
Acting Treasurer.

[From New York and Philadelphia *Medical Journal*, November 7th, 1903.]

At a recent evensong, for the special benefit of physicians, at an uptown church, the lesson was from Ecclesiasticus, xxxviii, 1-16. As this book is reckoned among the apochrypha and is unknown, save to members of the Roman and Episcopal churches, and, we fear, unfamiliar even to many of these, we venture to transcribe the verses read:—

1. Honor a physician with the honor due unto him for the uses which ye may have of him: for the Lord hath created him.
2. For of the most High cometh healing, and he shall receive honor of the King.
3. The skill of the physician shall lift up his head: and in the sight of great men he shall be in admiration.
4. The Lord hath created medicines out of the earth, and he that is wise will not abhor them.
5. Was not the water made sweet with wood, that the virtue thereof might be known?
6. And he hath given men skill, that he might be honored in his marvelous works.
7. With such doth he heal (men), and taketh away their pains?
8. Of such doth the apothecary make a confection; and of his works there is no end; and from him is peace over all the earth.
9. My son, in thy sickness be not negligent: but pray unto the Lord, and he will make thee whole.
10. Leave off from sin, and order thine hands aright, and cleanse thy heart from all wickedness.
11. Give a sweet savor, and a memorial of fine flour; and make a fat offering, as not heing.
12. Then give place to the physician, for the Lord hath created him: let him not go from thee, for thou hast need of him.
13. There is a time when in their hands there is good success.
14. For they shall also pray unto the Lord, that he would prosper that which they give for ease and remedy to prolong life.
15. He that sinneth before his Maker, let him fall into the hand of the physician.

Hospital Reports.

Chang-te-fu, Honan.

Medical work has been carried on steadily during the past year with a very fair average attendance of patients, the hospital wards have been especially well patronized and the larger proportion of resident patients has rendered the work more satisfactory in every respect; we have had representatives from four provinces coming purposely for treatment; some of these travelling more than one hundred miles and on foot, making this long pilgrimage as their last resort—too often alas to be sorely disappointed.

The number of patients for thirteen months has been 3,946 and the number of treatments 16,244, an average of 4.1 treatments for each patient, and affording an average daily attendance of 47.77 as compared with thirty-five for the previous year. About twenty-five per cent. of the patients have been women.

During the early summer six chien of hospital wards were erected for women patients, and alterations made in an old building formerly occupied by the ladies as a residence, provided a bright and convenient waiting room and chapel; in consequence of this work among the women patients, both medical and evangelistic, has been much more satisfactory, and it was hoped that with new wards situated in a more private part of the compound, the number of women patients would largely increase, but in this we have been somewhat disappointed, for the increase has not been appreciable.

One hundred and seventy-seven operations have been performed during the year; of this number

twenty-seven were for cataract, fifty-nine were operations on the eye other than cataract, and seven were for harelip. There has been little hesitancy on the part of patients submitting to operation when advised, and we not infrequently have definite requests made that we will use the knife or the needle.

In addition to our work in the hospital, a few visits have been made to the city, for which conveyance was provided and a small fee of 500 cash charged. This work has given us admission to homes among the better class of people, but we regret to report that almost without exception these visits have been apparently futile, for we are rarely invited till the patient is so sick that no hope can be held out of recovery, and it seems impossible to get these patients to follow out any systematic plan of treatment, and sometimes we are hardly out of their house when a native doctor (?) is called in. I have been assured that this is no mark of disrespect to a doctor, but the more doctors called to a house the better name does that house get for all the efforts made and money spent to effect a recovery.

Preaching has been carried on in the waiting room of the dispensary and daily worship has been conducted among the in-patients. Evangelistic work among this latter class is much more satisfactory than among the dispensary patients, and not a few have shown an intelligent interest in the gospel message, but out of these only ten have been recorded as catechumens, and we regret to say that unfavorable reports are heard of two of these; we may

frankly acknowledge that it is somewhat disappointing to find that only one patient in every four hundred treated makes a profession of Christ, and we are, at times, tempted to ask, "To what purpose is this waste?" Such small result is indeed an occasion for humiliation and a call for deeper devotion and closer attention to the spiritual side of the work. It is, however, unfair and impossible to tabulate the spiritual results, and we are assured that the seed sown will yet bear much fruit; to our certain knowledge, a large centre which previously had been indifferent and even hostile to the gospel, showed a complete change of attitude, which was ascribed by our native preachers as definitely due to the influence of the medical work.

We have found considerable comfort in doing away with the custom of presenting the doctor with presents, which were chiefly of uneatable eatables and substituting a subscription book for the use of grateful patients, forty-one of whom have contributed 26,800 cash (\$15.00). While most of the contributions have been from the poor and are consequently for small amounts, yet in many cases they are the tokens of genuine appreciation and real thankfulness, and we hope this is but the beginning of making this work less of a charge upon the home church.

In closing let me express appreciation of the faithful service rendered by our senior assistant, Chang Ai-hsin, and by our two juniors. Association with these three and our "aye ready" to help gatekeeper has been very pleasant; the assistants all show a commendable wish to make themselves more proficient, and the work of the year has been carried on without the least sign of friction.

To our God and Saviour who has given us this ministry of healing be

the praise and glory for any signs of good accomplished, for any suffering relieved and for any soul saved.

PERCY C. LESLIE.

**Roberts' Memorial Hospital,
T'sang-chou.**

It was with difficulty that we were able to urge on the workmen and have all ready by the 16th of February—the opening day of the hospital.

Of the events of that occasion an account has already been written, and a few words must suffice for them here. For that day at least the foreigners and their good works were prominently before the minds of a great multitude of the people, and we have since found reason to believe that the good impression then made was both enduring and deep. All the officials and gentry graced the occasion by their presence, and we had the pleasure of meeting, to the number of some hundreds, with influential men of all classes, representing the entire light and leading of the county, besides many hundreds more of our less prominent neighbours, whilst outside was gathered a dense mass of spectators from miles around, who no doubt took mental notes of this change from 1900, of the confidence of their leaders in our work and of their apparently genuine goodwill to ourselves.

The only hospital in an area the size of Wales, our scope has not been small. Disease in its protean forms reeks no more of caste and creed here than it does in other places. City and hamlet, mansion and hovel own its fell sway in T'sang-chou-foo. So the General comes for treatment for his ear and sends an officer to the wards with malaria and a couple of privates to be cured of bullet wounds.

We are slow to baptize enquirers, and in this matter the hospital

is no exception to the other branches of the Mission. But one man, who had been in an extra long time, was baptized at Christmas time, and a good few more may be looked on as hopeful enquirers, as well as several women.

Our rule to admit as assistants only men guaranteed by their church, makes it difficult to add to their number, though it greatly increases their worth.

During the year we have built a commodious and very convenient inn, which is also a food-shop for the patients and an annexe to the wards, and the funds are now in hand for isolation rooms, thanks to the cheering and generous efforts of friends in Edinburgh.

ARTHUR D. PEILL,
M.B.C.M., F.R.C.S.

**Hwai-yuen Hos-
pital, Year end-
ing Aug. 31st,
1903.**

Up to the middle of April the attendance in the dispensary was still small, and though numbers of surgical cases applied for treatment, none of them dared undergo an operation. In fact during the seventeen months we had been in Hwai-yuen, previous to April of this year, a general anæsthetic had been administered to only two cases, one of which was a trivial one. In April a number of patients applied at once, who were willing to submit to surgical treatment, and in ten days we did six major operations. Besides these a number of non-surgical cases applied for admission to the wards, and for two months our accommodations and energies were fully occupied.

As stated in last year's report, we have reuted and put into repair a number of Chinese dwellings situated on a main street just outside the South Gate of the city.

The dispensary has been open 179 days, and 572 new patients re-

gistered. Counting first and later visits we have treated 1,803 patients. We have visited nineteen patients in their homes, of whom eighteen were attempted suicides—sixteen taking opium, one hanging herself and one taking a cosmetic powder made from lead. One opium case died, one was dead on arrival; the suicide by hanging, died, and so did a case of dysentery. The others recovered. There has been no death in the hospital.

**Established Church
of Scotland Medical
Mission, Ichang.**

Our statistics this year are not in advance of last year's, but we have been able to observe a deepening in the confidence of the people toward us, in that they are coming to trust us much more readily and to allow us to operate in cases which previously would have run away had we ventured to suggest the surgeon's knife as a remedy. That spirit of superstition and dread which was once against us seems now to be for us, and very often they come expecting, like Naaman of old, that we by a wave of our hands over the place will recover them.

This great faith in us has, too, its humorous side. An offending tooth has been removed from an old lady in her sixties, and she seemed grateful for the help we had rendered; but before leaving the surgery she asked, in all sincerity, if we would not give her some foreign medicine which would make a new tooth grow. Another lady, whose age had "fallen into the sear, the yellow leaf," and who was therefore long past child-bearing, asked for medicine that would enable her to have a child; and when she was told that there was not such a medicine, her face showed that she did not believe us, but felt that we had some reason



ICHANG HOSPITAL PATIENTS, — DIVES AND LAZARUS.



BOY PATIENT AT I'CHANG HOSPITAL.

of our own for refusing her the precious drug. In our out-patient clinique a man, said to be a new patient, came in for consultation. Seeing one of our hospital bandages fastened round his leg we fancied a mistake had been made and that he was a patient who had been seen and treated at our hospital before. "No, I have not been here before," he said. "Then how came you with one of our hospital bandages?" we asked. "Oh," he replied, "a friend of mine who had a bad leg was cured in this hospital, so he let me use the bandage which had done him so much good." And in the wards amongst the in-patients the application of the clinical thermometer is often believed to be more efficacious a charm than the line of treatment adopted. They feel ever so much better after the thermometer has been under their arms.

By far the largest majority of cases we see are due either directly or indirectly to syphilis, and this seems in accord with the experience of other medical missionaries in this land. With others, we feel we must protest against two very rash and unweighed statements which appeared lately in the columns of the *China Medical Missionary Journal*. The article in question was not written by a medical missionary, and it says of China: "Prostitution, with its evil train of disease, is comparatively rare," and again, that "in comparison with alcohol the evil wrought by opium is trivial. The opium habit is perhaps more nearly equivalent to tea-drinking or tobacco-smoking." To these two statements we give an absolute denial. The evil train of disease following prostitution is seen to a far greater extent in China than at home, where early treatment is usually adopted. Here the disease runs its course unchecked, causing ghastly and disgusting disfigurements of the whole body; in many

cases more loathsome even than leprosy. And although the post-mortem table can show no changes attributable to opium, yet the moral death and wrecked conscience of the individual, his ruined home and family, bear loud witness against the evil of Chiu's great curse. We acknowledge that a few can be moderate opium smokers, for we have seen men (they have all been strong country fellows) come in, who for twenty or more years have not exceeded the daily dose of one drachm of raw Chinese opium; but we are not exaggerating when we say that such cases form at most one per cent. of opium smokers.

Malaria is extremely common, and especially in the country districts where the rice fields form such ideal abodes for malaria-bearing mosquitos. The benign forms of the parasite are by far the commonest, but just lately a man has been with us with malignant malaria; his blood being full of crescent bodies. But besides malaria there are many undescribed fevers which puzzle us extremely.

Leprosy we rarely see, and the one case this year was not a native of the place. Considering the amount of syphilis in China, one would expect to meet a larger number of the diseases of the nervous system, said in the books to follow that affection. But those nervous cases that in home hospital, while the joy of the professor are the bane of the students, are rarely met with. Locomotor ataxia we have never seen, and from the reports of other hospitals in China that affection seems rarely met with anywhere in this land.

Fuh-ning Medical Mission, 1903. It has been a year of quiet progress bringing to our wards an appreciable increase in the number of patients.

The fact that we have obtained the confidence of the people is evidenced by their being willing when ill to pay us an early visit, not waiting until all the native remedies have had their trial. Fuh-ning people are unenterprising; even in the matter of idol worship they are lacking in zeal, and so it is no easy matter to interest them in the claims of a foreign religion. Medical work is a most effective means of arousing this interest not only in this city but throughout the entire district. This year our hospital became closely linked to the Dublin University Fuh-kien Mission and now forms an integral part of the Mission's agency.

For the past six years we have in our men's hospital been working under very disadvantageous conditions. The wards are totally unsuited to our present needs.

We exercise strict hospital economy, and there is really nothing unnecessary in use.

The operating table, the cost of which was less than thirty shillings, consists of a lacquered slab of hard wood in one piece, supported on four legs, and with a slightly concave surface; the head is higher than the foot, so that fluids may fall into a tray which fits in under the projecting rounded end. For about the same sum we purchased a large camphor wood press capable of containing instruments and the year's supply of hospital dressings. A few small tables, also made locally, for holding lotions, enamelled bowls and trays, complete the furniture of the operation room.

The Women's Hospital has had 306 in-patients during the year. This is an increase of ninety over the previous year, for which we are most thankful. The increase undoubtedly is due to the entire isolation of the female wards from the men's hospital which was effected early in the year.

Purulia, India, Leper Asylum. Its aim is to acquaint the lepers with the gospel and to mitigate their sufferings by giving them shelter, food, and medicine. For this purpose it supports asylums of its own and assists such as have been established by other societies. The Mission to Lepers being interdenominational, does not send out missionaries of its own, but utilizes existing agencies.

Excepting eleven persons, all of the 576 lepers in the Asylum come from the district of Manbhum, and among those eleven who are not Manbhumites, six have come from the Chota-Nagpur districts of Singhbhum and Hazaribagh, where there is no leper asylum. Of the remaining five strangers, one came from Bilaspur, C. P., one from Calcutta, one from Morbhanj, and two from Oudh. The chief contingent of lepers is supplied by the Kurumbi caste, next follow the Bauris and the Telis; there are only a few Doms and Chamars among the lepers at Purulia.

Segregation being necessary, even if leprosy be contagious and hereditary only to some extent, as held by the Leper Commission, the sexes are strictly separated, and no marriages allowed in this Asylum. A wall six feet high divides the men's quarters from those of the women, and the quarters of the tainted girls are secluded by a wall. Lepers are strictly prohibited from leaving the Asylum and going to town, and a watchman is employed by night to see that the rules are not infringed. At the shop inside the Asylum, as well as at the dispensary, men and women are served on opposite sides. There are four couples, in which both husband and wife are lepers. They too, have been separated, the men living in the men's quarters, the women in those for the women. There are seven couples in which healthy wives accompanied their

husbands in coming to the Asylum. These have been separated, the men only staying at the Asylum, and the wives staying near the mission compound, supporting themselves by daily labor. The rest of the married lepers, both men and women, came to the Asylum, having been abandoned by their partners on account of their leprosy.

Men receive nine chataks rice per diem and five annas, nine pies per week, in cash; women eight chataks rice and four annas cash. There is a shop inside the Asylum, in which the inmates purchase their requirements of dal, salt, spices, vegetable, oil, tobacco, etc. The reason why the lepers are allowed to cook their own food and to do a little shopping is to occupy them in a manner most agreeable to themselves and conducive to their health. The money received in the shop from the lepers is disinfected before it is taken into use. Those who are unable to cook for themselves receive their food from the kitchen in which food is prepared for the tainted children. Special diet is given to those for whom the doctor prescribes it.

For the natural wants of the people no latrines have been provided for them, their usual practice of using the woods having been recommended by the Inspector-General of Civil Hospitals, Bengal, as the best, so long as a thoroughly equipped arrangements for cleaning the latrines by hydraulic power cannot be provided. Reservoirs have been built at the head of each drain, out of which the drains are flushed every morning with a Phenyl solution, to carry away any waste or polluted matter.

Rev. Theo. F. Hahn, M.D., is in charge of the medical branch of the Asylum. He is assisted by a Christian native doctor, who received his diploma from the Medical College at Agra. The treatment aims at

an amelioration of the condition of the patients rather than a cure of the disease since no remedy has been found as yet which may effect a cure. For the disease proper remedies are applied, both externally and internally. Ulcers and foul-smelling wounds are cleaned and treated with such antiseptics as *iodoform*, *boric acid*, *acetanilid*, *carbolyzed vaseline*, while the natives themselves are accustomed to cover their wounds with tar and charcoal or phenyl. For the extensive burning accompanying each new febrile attack, such remedies as *cochra* and *gurjun oil* are applied externally, and *chaulmoogra oil* in internal doses.

The average number of deaths per annum is twelve per cent. Last year out of 569, there were twenty deaths, and in the current year up to date out of a number of 632, there were sixty deaths. Since the opening of the Asylum in 1889, no less than 1,777 have been received, out of whom 894 died in the Asylum and 268 left or were discharged.

There are at present in the Asylum ninety-five children, forty-seven of whom are boys and forty-eight girls. About half of these are already grown up. These children and young people are taught the rudiments of knowledge, besides religion, singing and drill. The girls have to cook for them all and wash their clothes. Two of them are helping in teaching the women. Nearly all these children are the offspring of leprous parents, or have been brought to the Asylum by their leprous relatives. There are five children, who have healthy parents, that brought them to the Asylum for support, since the inhabitants of their respective villages would not allow of their staying at home.

In the Home for untainted children there are at present twenty-seven boys and thirty-one girls, all

children of leprous parents, except a few, that were brought here by their leprous relatives, on whom they were dependent for support. No healthy children over three years of age are allowed to stay with a leprous mother, an inmate of the Asylum. Every other child brought by lepers is separated from them at their arrival. In the Children's Home the boys and girls are taught Lower Primary course. Some of the more gifted boys learn up to the Upper Primary examination.

Two boys have passed the U. P., and one the L. P. examination, up to this time. Special stress is laid on drill. At the coronation festivities the boys of the Children's Home carried off several prizes, one of them even receiving the first prize, a silver watch and chain. The girls learn sewing and have to cook the food for all the children, to work and mend their clothes. The boys having learned some trade, and the girls being able to support themselves, they are allowed to marry, and must leave the Home and settle in life independently. Thus twelve families have been formed out of these children. Two boys have become carpenters, two bricklayers, three teachers, one a compounder, and three are menial servants.

During the last two years three boys and two girls of the Children's Home developed the initial symptoms of leprosy and were transferred

to the Asylum. Two more boys were suspicious and are under observation, being kept outside of the Children's Home as well as the Asylum.

In connection with the Children's Home there is an Industrial School in which the grown up boys learn a trade. At present two boys are learning carpentry, one boy is learning tailoring, one weaving and one bricklaying.

In connection with the Dispensary of the Leper Asylum a class has been opened by Dr. Theo. F. Hahn for the purpose of training young men of the Children's Home and other Christian boys for the office of caretaker in leper asylums, compounders and catechists for missionary charitable dispensaries. At present there are five students, three of whom have come from the Children's Home. The thought has been considered that if government recognize the school, as it has done with regard to the Medical Mission at Hazaribagh and Kalimpong, this class might become a still more useful institution.

Religious instruction is given every day. Services are held twice on Sundays, besides a Sunday School for all those that want to attend and who wish to receive such instruction. None is compelled to do so, and no material advantages of any kind are granted to those who embrace Christianity.

BIRTHS.

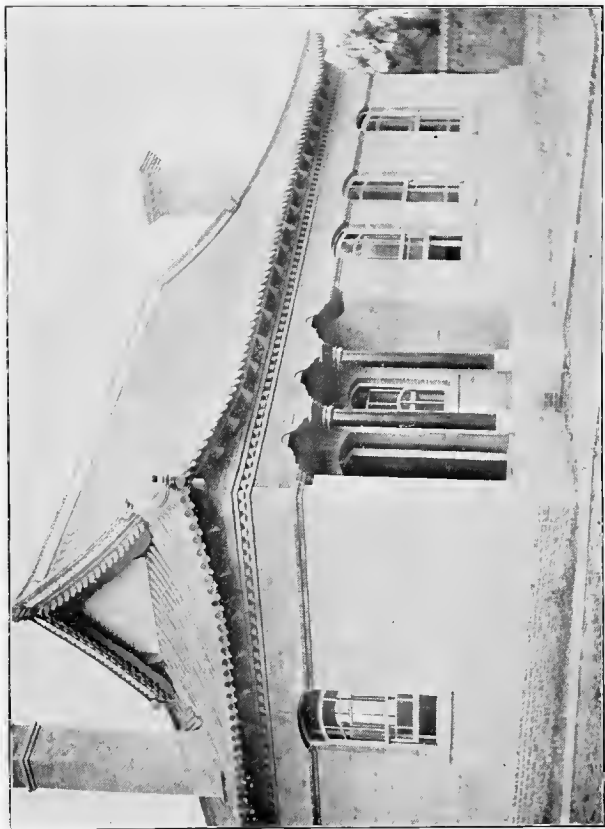
At Shanghai, March 19th, to Dr. and Mrs. W. H. JEFFERYS, a daughter.
At Tai-chow, March 20th, to Dr. and Mrs. S. N. BABINGTON, C. M. S.,
a son.

ARRIVALS.

December 29th, O. S. BEHRENTS, M.D., American Norwegian Mission,
for Ru-ning-fu.
February 9th, Dr. HOWARD TAYLOR, C. I. M., from America.

DEPARTURES.

January 1st, Dr. L. L. MOORE, wife and daughter, S. P. M., of Hsi-chow-fu, for America.
January 10th, Dr. F. E. WILLS, L. M. S., Tsao-shih, for England.
January 30th, Dr. J. N. STEVENS, A. C. M., Shanghai, for America.
February 22nd, Dr. HOWARD TAYLOR, C. I. M., for England.
February 27th, Dr. S. R. HODGE and wife, W. M. S., Hankow, for
England.



WOMAN'S DISPENSARY, AMERICAN PRESBYTERIAN MISSION, WEI-HSIEN.

The Hospital consists of two rows of one *chou* rooms, fourteen in all, facing south, furnished one-half with beds and one-half with k'angs. Brick floor.

The China Medical Missionary Journal.

VOL. XVIII.

JULY, 1904.

No. 3.

Original Communications.

[All papers must be in the hands of the Editors two months before date of publication to insure their appearance in the following number. The editors cannot undertake to return manuscripts which are sent to them. A complimentary edition of a dozen reprints of his article will be furnished each contributor. Any number of reprints may be had at reasonable rates if a *written* order for the same accompany the paper.]

A CASE OF CÆSARIAN SECTION.

By JAMES L. MAXWELL, M.D., London, Tainan, Formosa.

These cases are not yet so numerously performed out here as to make their description trite. I am therefore contributing the history of this case which was recently operated upon by me.

Ong Ngo, aged thirty-three, a Chinese woman, was seen by me on September, 1903; her labour having already well begun.

A multipara with two previous pregnancies; the second being a twin pregnancy. She suffered from an extreme pelvic contraction of the kyphotic variety, due to a very sharp angular curvature in the dorso-lumbar region. Her height was about four feet. The previous children had had to be removed artificially; the first with great difficulty after cephalotripsy and the twins with much greater difficulty after embryotomy. I am told that she nearly lost her life over her second pregnancy.

On examination I found a living child, lying in the usual position, except that the head occupied the transverse diameter of the pelvis. The abdomen was extremely pendulous. The pelvis was, as far as one could make out, extremely contracted. I judged the transverse diameter at two inches. Farther and more careful examination was prevented by a diaphragm across the vagina, about half way up, which would not admit one finger and which I suppose was the result of the damage done in the extraction of the twins. Labour had commenced twelve hours before I saw the patient; the membranes fortunately had not broken. Owing to the diaphragm mentioned above, the os could not be reached.

It was evident at once that caesarian section was the only possible treatment, and permission was readily granted for the same.

The patient was immediately removed to the hospital and operated on one hour later.

With the help of a ring air cushion which surrounded the angular curvature it was just possible to keep the patient in the supine position. *Chloroform* having been administered and the abdominal wall washed an incision was made, reaching from three inches above the pubes, almost to the ensiform cartilage. The whole uterus was then turned out of the abdominal cavity, the walls drawn together behind and a large pad so packed in as to prevent fluids entering the abdominal cavity. Owing to the very pendulous condition of the uterus the incision had to be commenced on the very summit of that organ. A small incision was commenced at that spot and gradually deepened without much bleeding till the placenta was reached, which unfortunately lay directly beneath. Bleeding then became terrific and the incision was rapidly continued for about six inches through uterine and placental wall for its whole extent. The placenta in fact was so placed that the incision practically bisected that viscus. The worst of the hæmorrhage was immediately checked by two assistants pinching the uterine wall at the sites of the placental sinuses. The child was seized by the left knee and extracted without difficulty, the cord caught with forceps and divided at once and the placenta and membranes quickly shelled out. With the application of towels rung out in hot water the uterus immediately contracted and the bleeding gave no further trouble. The uterine wall was closed with a single layer of salmon gut sutures and the uterus replaced in the abdominal cavity. Little blood had entered this, and no attempt to cleanse it in any way was made. The abdominal wall was also closed with a single layer of salmon gut sutures. The patient was in very good condition at the end of the operation. Convalescence was very rapid; the wound healing by first intention. Unfortunately the uterine sutures were probably not quite aseptic and several of them ulcerated out a month or so later.

The child was a full term male and gave no trouble. Curiously it has a large cystic hygroma of the neck. The only one I have seen here. The mother was so pleased at having a live child that she jumped at the idea of my naming it for her—Khai Sat.

Almost no notes need be added to this case which but for the unfortunate position of the placenta was a very simple one. Personally I think the larger incision and turning out of the uterus before incising it, is the simpler operation. A few inches more or less in the abdominal

incision make no practical difference to the future strength of the abdominal wall. And where one has only the help of very partially trained Chinese assistants the possibility of making the major part of the operation extra-abdominal relieves one from much anxiety.

AN INTERESTING CASE OF MULTIPLE CONCEPTION.

By EDNA B. PARKS, M.D., Wei-hsien.

October 22nd, 1903, a call came from a village forty *li* away. The husband who came for aid reported that his wife had given birth to a male child twenty days previously; she had had no lochial discharge after delivery and no milk; had been up and at work for two weeks, but for three days previous to his coming had been feverish and unable to eat; she also had what he described as a "piece of disease in her abdomen," which was daily increasing in size; he wished me to see her; a conveyance was provided for myself and assistant, and we went out at once.

The patient was a woman of thirty-six, a 5-*para*, well nourished and with good previous history. Former labors were normal. Pulse eighty-four; no temperature, but with furred tongue and sufficient constipation to account for loss of appetite and apparent feverishness.

The labor had been rapid and easy and placenta and membranes had come away. The pregnancy had been normal, except that from the first the patient had noticed that the uterus seemed to be divided in the median line by a sulcus; when delivery occurred the left tumor disappeared while the right tumor remained. The child was a boy, apparently at or very near full term. I judge that he did not weigh more than five or five and a half pounds.

Abdominal examination revealed a movable tumor in a pendulous abdomen, extending above the umbilicus; it was hard to believe the evidence of one's senses when it seemed to resolve itself into a pregnant uterus: head, back and extremities all easily palpable. The mother confessed that she had felt motion, but supposed that it was in her bowels. A stethoscope gave the further evidence of unmistakeable foetal heart sounds. Upon vaginal examination there was found a patulous cervix; no discharge; a presenting head, L. O. A., with free ballottement. The breasts were the breasts of a pregnant woman, but contained no milk. The digital examination discovered but one cervix and one cervical canal; beyond that nothing could be determined. I informed the family

of her condition, gave *calomel* and left *mag. sulph.* and very reluctantly came home, urging them to keep me informed of her condition.

Twenty-four hours after my visit a living female child was born, said to be larger and better nourished than the first; labor normal in all respects; a normal lochial discharge and an early flow and abundant supply of milk. On the third day she was still constipated and abdomen still large; another dose of *calomel* and *mag. sulph.* was sent out, and a week later mother and both children were reported well and hearty. The first child, the boy, died two months later; since then have lost sight of the case.

The case presented many interesting features; chiefly the delivery of the two living foetuses at an interval of twenty-one days. Would not the complete absence of lochia after the birth of the first point to the two being the occupants of one uterine cavity; there being a communication by which the blood supply of the first placental site was turned at once to the second? On the other hand, the history of the double tumor before delivery and the casting off of one foetus without interfering with the other, would suggest a double uterus. In that case, however, would there not have been lochia after the first delivery?

The American Text-book of Obstetrics, page 144, says: "In consequence of the nutritive advantages enjoyed by one foetus at the expense of its less fortunate fellow, it sometimes happens that the fully matured foetus is expelled at term, while the still imperfectly developed foetus is retained for a time within the uterus until its development has progressed further towards completion, when it is in turn born. Two remarkable cases in which double uteri were present have been recorded by Barker and Generali, where intervals of forty-three and thirty days respectively intervened between the births of the two foetuses."

The writer frankly confesses her inability to explain this interesting case of multiple conception and would be very glad to be referred to works on the subject by which light might be thrown upon it.

Dr. K. M. Duhart (Bombay) gives three reasons (exclusive of skill and technique) for operative failures in India, viz. :—

"Notwithstanding all this care, it is true that some of our cases go bad, but that is, in my opinion, due to no fault of the operator, or his assistant or in the operation itself, but to 3 causes chiefly viz., (1) to the *nature* of the cases we get, (2) to the *feeble stamina* of our people, and (3) to our *climate*. It is really very much to be regretted that the patients do not come to us in time; that depends (a) mainly on their ignorance as to the nature of their complaint and (b) partly on their usual, much to be deplored, indifference and modesty, and also (c) the dread of the knife."

EXPERIENCES IN ABDOMINAL SURGERY.*

By S. R. HODGE, M.R.C.S., L.R.C.P., Hankow.

The opportunities for this sort of work in Central China are not very numerous, and I must confess that I feel the small experience that I have had is scarcely worth narrating. My only justification for doing so is the hope that the after discussion may bring out something valuable to all of us.

Thirteen cases form the basis of this paper, in all of which, with one exception, the peritoneal cavity, was opened; that one exception I have ventured to introduce, as it was a very interesting case, and being a case of pelvic surgery, may be looked upon as having a relationship to my subject.

HERNIOTOMY.

I have done, in all, five cases of herniotomy. Three at home and two out here . . . All three at home were done for strangulation of the bowel; two were femoral hernias and one inguinal. It is interesting to me to see that I did the first operation under the spray and felt it sufficiently important a departure from that routine to note that I did not do so in the others, using *iodoform*, the new antiseptic then on its trial. In each case I ligatured the sac high up with silk and cut the part below the ligature off. In one case I have noted that there was slight suppuration from the silk ligature, but in those days we did not sterilise our ligatures, or indeed anything, in the way we do now. The patients were severally aged: thirty-seven, twenty-nine, and sixty-four—and in the first two the hernia was not recent; the first having worn a truss for two years and the second for four months. In the first case, which was inguinal rupture, the tumour had increased in size after it had come down and symptoms of strangulation had set in. This was probably due to effusion of fluid into the sac as, of course, a strangulated hernia cannot have any fresh descent of gut. I punctured the sac to let off the fluid, in the hope of being able to reduce it without doing the open operation, for in those days we had a great dread of opening the peritoneum, and it was considered a great triumph if you could do an extra-peritoneal operation. I remember seeing Jonathan Hutchinson spending some time in applying taxis on a huge negro under *chloroform*, and when successful, turning to us in triumph and impressing upon us the importance of trying taxis first, not once or twice, but for some time on all cases when under *chloroform*, before proceeding to an operation. When one remembers that this was only twenty years ago one

sees what strides we have made in abdominal surgery, for nowadays one would always open the sac with impunity and urge an operation, whenever possible, in preference to wearing a truss. This first case was a congenital hernia, and I stripped the sac off the back of the vas. My second case was a femoral one, and I learnt a lesson that I shall not easily forget. The stricture was, of course, at Gimbernat's ligament, but I had not realised at what a depth that ligament is or how difficult it is to get beneath it. I smashed three knives before I notched the tight band. If any of you have to operate on a strangulated femoral hernia remember that you will only just be able to get your finger nail under the obstructing ligament and that, in turning your hernia knife, after having slipped it under the obstruction along your finger, you must ease your finger well up toward the abdomen or there will not be room for your knife to turn. The third case had been strangulated for a week and had faecal vomiting on the table. We reduce the hernia; the gut not having lost its resilience, but the patient, a woman, died within twelve hours after the operation.

Although I have seen one or two strangulated hernias in China, I have never succeeded in persuading them to allow me to operate at once, and each time I have succeeded in reducing the hernia by applying cold, raising the foot of the bed, and putting them on opium. But lately I have had two cases of herniotomy upon old standing herniæ that were not strangulated. In the first case Dr. Gillison assisted me, and we found the hernia sac filled with omentum. As it was firmly adherent all round the neck of the sac and was difficult to peel off we left it alone, as we felt we might do harm to the structures if we persisted in our attempts to separate it; whilst if left it formed a natural barrier to further descent of the gut.

I was entirely responsible for this decision and, although the man has had no increase of his trouble as far as I am aware, I rather think the practice is not one to be followed; the presence of the omentum in the canal, despite the adhesions, tending to cause further descent of the bowel and also involving the risk of strangulation at some future time in some pouch of the epiploon. Were I to encounter such a case again I should lay the canal freely open, pull down some more omentum and ligature it off with several ligatures, cut off the part below and excise it with the sac.

My last case I operated on not very long ago. It was a case of oblique right inguinal hernia. Assisted by Dr. Booth I performed Barker's operation. As you may not all know the details of this operation I give it in a few words. "The neck and upper part of the sac having been

separated from adjacent parts and proved to be empty, two ligatures of strong fine carbolised silk are carried under the neck and tied about half an inch apart and the sac divided between them. The upper ligatures are left long. The left forefinger, introduced into the canal and through the internal ring, is made to press its anterior wall forwards. One of the silk threads left long on the upper stump of the sac is now threaded on a needle with a handle and carried up the canal inside the internal ring, and through the abdominal wall above and external to the external ring; the other is similarly passed through the abdominal wall about half an inch to the inner side of the first. These sutures are then knotted tightly, and by this means the stump of the sac is drawn up into the abdomen and fixed there. The external ring is then closed by sutures, which should, if possible, take up the conjoined tendon as well." I found this operation extremely simple and satisfactory. The only difficulty is one that is common to all these operations, namely the recognition and separation of the sac. In separating it from the cord the vas deferens is the best guide. My operation was done most carefully with every aseptic precaution. The area of operation was carefully prepared and then covered for some hours before with a *bichlorid glycerine* compress. Silk ligatures were boiled, and nothing but dry sterilised compresses were used for the wound. The wound was finally dressed with *bichloride* gauze which had been boiled in salt and soda solution. And yet the wound sloughed. I had used no drainage, but this is not needed in an aseptic operation on uninjured tissues and, further, in a radical cure is especially not needed, as one wishes to secure primary union of the whole length of the wound. Where the fault lay I cannot tell; there may have been some defect in the asepsis or the manipulation involved in separating the sac from the cord (where you are working amongst exceedingly delicate and loose tissue) may have set up irritation, but one would not expect that to go to sloughing in a perfectly aseptic wound.

OVARIOTOMY.

I have done, in all, only three cases of ovariectomy, which amongst several thousand women patients that I have had the operative care of is not much to boast of. The day has evidently not yet come when they will trust us to such work, while, on the other hand, we can never hope to be good abdominal surgeons until we get more practice.

It is noteworthy that my first patient came to me largely because a brother of hers had been successfully operated on by Dr. Deas.

Her own account was : " His abdomen was cut and intestines cut and sewed together again and he has been quite well ever since." From enquiries I subsequently made, I believe the case was one of fæcal fistula operated on by Dr. Boone of Shanghai, to whom Dr. Deas sent the case.

My patient was twenty-eight years of age and married, but had had no children. The tumour had been growing for four years and was very large. The girth at the umbilicus was forty-three inches, and three inches above was forty-four, whilst the protuberance was so great that from ensiform cartilage to pubes measured twenty-three inches. The operation presented no great difficulty. The incision was a three and a half inch one; afterwards prolonged upwards for another inch and a half; adhesions were few and easily broken down. The pedicle was ligatured with silk, and thirteen silk ligatures, deep and superficial, were used for the abdominal wound; the whole thickness of the abdominal wall being included in each suture. The wound was dressed with *boracic* lint. Hot water was used to flush out the peritoneal cavity and had a marked reviving effect on the patient. Instruments, sponges, ligatures, etc., were all boiled and the room specially prepared and rewhite-washed before operation. The patient was very collapsed at the end of the operation, but reacted well; in fact a little too well, and at first was very noisy and restless. She gave a little anxiety at first and needed much stimulation, and at one time showed signs of dysentery (probably due to a pure brandy *enema* on table), but everything yielded quickly to treatment and she left hospital cured and well on the sixteenth day; the dressings having been opened for the first time on the seventh day when, with the exception of one or two small places where a piece of silk had got between the edges, the wound had healed by first intention. In the after treatment nothing but hot water was allowed for the first day and hot water enemata were used for thirst. Months after, I heard my patient was well and hard at work.

The cyst wall, when empty, weighed three pounds and one ounce and was very thick. The inner surface was covered with small papillomatous growths and a few small cysts. One or two places of the cyst wall, where it was very thick, when cut into showed a true cavity, as though they had been secondary cysts, the fluid of which had been absorbed by pressure; there was no solid matter in the cyst whatever. The fluid drawn off measured thirty-eight and a half pints and was of a deep chocolate colour.

I was assisted in this operation by Dr. Thomson, and Dr. Mackay gave the *choloroform*. My second case was in a woman forty years old,

who had had one child, one miscarriage. The tumour had been growing for five years and had first been noticed on the left side. Menstruation was regular up to time of operation and her general condition was good. The tumour, though large, was not so big as my previous case; the greatest girth being thirty-nine inches at a point four inches above the umbilicus. From the ensiform cartilage to the pubes measured seventeen inches. The patient was kept in hospital a week before operating, so as to get all the organs into good condition. Dr. Gillison and Dr. Parrott assisted me in the operation and Dr. Mackay was again the anaesthetist. The preparation of patient, instruments, etc., was as before. As soon as the linea alba was cut through a dark bluish brown membrane, containing fluid, bulged into the wound, and it was some time before we could be certain whether we had opened the peritoneum or not. It proved to be the peritoneum distended with a large amount of brownish looking ascitic fluid. When this was got rid of, to do which we had to turn the patient on her side, the white somewhat pink looking wall of the tumour came into sight. The cyst was found to go deep down into the pelvis and to have very firm adhesions to howel and abdominal wall. Although the tumour itself was not very large, its relation to the uterus could not be made out. All attempts to separate adhesions proved futile and had to be finally desisted from, after the mesentery had been torn and ligatured in several places. It was then decided to tap the tumour and cut the cyst wall away from any adhesions that we could not separate. Some dark treacly fluid was evacuated and then a digital exploration of the inside of the tumour confirmed the suspicion that had been growing upon us that it was malignant. The tumour was filled with large masses of growth, which were granular, gritty and bled freely. The tumour was opened more freely with the cautery and stitched to the abdominal wall; one drainage tube being placed in the cyst and another in the abdominal cavity. The operation lasted three hours. The patient did fairly for three days, but had a weak pulse. On the evening of the third day she suddenly collapsed, complaining of great pain in the abdomen. She lived for another twenty-four hours and rallied somewhat under treatment, but died rather suddenly. Of course no *post-mortem* was allowed. One naturally thought of peritonitis, but the abdomen did not seem distended or to be tender on palpation.

My third case was operated on in 1899 and was the largest of the three; the girth round the umbilicus being fifty and one-half inches. The woman was thirty-nine years old and married; had one child fifteen years old. Periods had been regular up to three years before coming under observation and the tumour had been first noticed a little before they

stopped. She was anything but a desirable case for operation, but was in such a miserable condition that life was a burden and one was bound to take any risk. The abdomen was so enormously distended that for the last eleven months it had been impossible for her to sit or lie down, and she had been obliged to keep in a kneeling position. Large veins coursed over the tumour; there was great œdema of legs, vulva, and back, constant desire to micturate and albumen in the urine. The operation had to be done at once, as very soon after she came in she became very much cyanosed and almost pulseless, with great dyspnœa. On the morning of the operation I first drew off about two pints of the fluid with a Southey's trocar so as to relieve matters a little. Dr. Huntley gave *chloroform* and Dr. Booth and Dr. Gough assisted me. I made the incision with the patient in the semiprone position, as it was impossible for her to lie down. The large S. Well trocar being out of order I had to use a much smaller one, through which the dark treacly fluid flowed but slowly. As soon as it was possible patient was lowered to the Trandelenberg position. The cyst wall was very thin and rotten, and under manipulation gave way. It was found to be universally adherent to abdominal wall, bladder and almost every organ; it extended high up under the ribs and was adherent to the diaphragm. Separation from the bladder was difficult, but accomplished after passing a sound into that viscus. The right ureter was seen and separated. We could find no pedicle to the cyst, which came right away. Possibly the pedicle, by traction, had got so very thinned out that we had torn it through, thinking it was an adhesion. The right ovary was cystic and was removed. The large cyst was from the left ovary and was multilocular, but its connexions were very puzzling. It seemed to be connected with a firm elongated mass, which at first we thought was the uterus, but it proved not to be and further had the fallopian tube running along the top of it, so that it would appear to have been either the ovary or a mass of growth independent of the ovary which had developed in the walls of the broad ligament. If we were right in our belief that our tumour was from the left ovary and that we had removed the right one, then this mass must have been some development in the broad ligament. The woman became very collapsed before we had finished and died on the table.

One or two things may be profitably stated from practical experience. A very large tumour has so thinned out the abdominal structures that the preliminary incision is no easy thing. But it is well to remember that in nearly all these cases a large part of the distension is generally due to ascitic fluid and not to the tumour itself and that

you are more likely to cut into the peritoneal cavity than into the tumour. It is important therefore that you should know whether the fluid is ascitic or not, for I have seen the peritoneum stripped off under the impression that the cyst had been opened. The character of the fluid will guard against this mistake. Although it may be dark, like ovarian, it will never have the glutinous greasy consistence of true ovarian fluid. In cases without ascites passing your finger up to the umbilicus will tell you where you are. If you can get up beyond it and find no attachment there, you may feel sure you are in the peritoneum.

Here I would mention the one case that is not strictly abdominal. Some fifteen years ago a little child, three years old, was brought to me suffering from imperforate anus. Meconium was coming out of the urethra pointing to an evident recto-visical communication, but as I thought I could detect a bulging at the anal site, on crying, I attempted to reach the bowel by dissecting up along the coccyx, but failed. A proposal to open the howel in the groin was declined. The child was a boy, but had spurious hermaphroditism. The scrotum was split and each half contained a testicle, the penis was bound down between the two halves of the scrotum and continuous above, beneath and laterally with the scrotal tissue. On the upper part, along what ought to have been the dorsum of the penis, there was an appearance as of a raphe and beneath the penis was a small pit like depression. The prepuce could be retracted exposing the glans.

I have had one case that I thought might be appendicitis. A soldier, aged forty-three, came to me in 1895 with a history of obstruction for six days. There was vomiting. No hernia was present, but there was a tender swelling in the right cæcal region. His temperature was normal. The swelling was not as tender, on careful manipulation, as I had thought, but it felt doughy. The absence of temperature made me, at the time, put appendicitis out of court, although there seemed to be pain at McBurney's point. Pulse was full and not at all abdominal in character. Fomentations, *enemata*, and *calomel* were tried. Two days later he was little better; vomiting had stopped, pain was relieved, but bowels were still unmoved. The swelling seemed more defined and elongated, pulse was 100 and temperature 99. Next day I saw him, in consultation with Dr. Cuypers and Dr. Mackay as to whether to operate at once or wait. There was more swelling and more dullness and more tenderness, but as his general condition seemed better it was decided to wait twenty-four or thirty-six hours. At the end of this time, as matters had not improved, I operated, assisted by Dr. Gillison and Dr. Cuypers. The incision was external to the deep epigastric artery and about one inch internal to the ant. sup. spine. I found the

abdominal wall all infiltrated with pus. I got down to the bowel and found it shut off on the inner side from the general peritoneal cavity by dense adhesions, but free on the outer side. The bowel looked gangrenous. Being afraid to meddle with the adhesions I simply packed it with gauze. The man died, presumably of septic intoxication, some hours after. I was permitted to examine the wound afterwards. On breaking down the adhesions on the inner side of the bowel I came upon a small quantity of bloody, grumous-looking pus, not much. I could not pull the bowel out through the wound and could not identify the appendix. The under surface of the bowel was highly inflamed and gangrenous and the walls were infiltrated.

The lesson to be learnt from this case is the danger of waiting too long. The incision was probably too external and did not get to the cæcum. I should have done better I think to have broken down the adhesions. But the probability is I could not have done much. I was altogether too late in operating and the man was already suffering from advanced septic intoxication.

My next case was the removal of a large gall stone from a Chinese lady who was evidently suffering from septic cholangitis, which proved fatal. Before she came under my notice she had been ill for one month with a history of discomfort after food and some epigastric swelling. She had been under the care of a medical missionary, who had suspected cancer, especially as the lump continued to increase in size. There was a history of fever at the commencement of the trouble, but on admission the temperature was sub-normal. It, however, continued to go up steadily until it reached 101 the day before operation. The patient was constipated, restless, with feeble pulse and aching all over. Heart and lungs were normal. In the epigastrium there was a hard mass with definite outline, which moved with inspiration. It was situated in the region of the stomach and the left lobe of the liver. The right lobe was not enlarged, the mass was not painful or tender, and it was not knobby to the feel, but smooth. It was, however, very hard. There was no vomiting. I was inclined to think it was not cancer, but some swelling connected with the left lobe of the liver, though I could not say what.

Five days later she was much worse. She was quite unconscious with no conjunctival reflex; she had for some time been passing all her motions unconsciously. She had only secreted six ounces of urine the past twenty-four hours, which had been drawn off by catheter, and her temperature was 103. Locally there was a great change. The enlargement in the region of the liver was now much greater and involved the right lobe and there was œdema over the epigastrium. The whole

mass was more ill defined, except that at one place it was distinctly knobby. Consent having been obtained of the friends I explored the swelling the same afternoon; Dr. Booth and Dr. Gough assisting me. The patient being unconscious no anæsthetic was needed. An incision was made in the right hypochondrium just below the ribs and over the region of the gall bladder. An aspirating needle inserted, drew off about fourteen ounces of dark bile. The wound was then deepened and enlarged upwards and a finger inserted, when a large gall stone was felt. This was fixed under the ribs with a finger and cut down upon, and the gall stone, weighing half an ounce, was extracted. The edges of the gall bladder were stitched to the abdominal wall; a rubber drainage tube inserted. Patient never recovered consciousness and died six hours later.

The last two cases I wish to mention were laparotomies for trauma. The first case was a gunshot wound of the intestines. The man was struck when a *li* and a half away from the firer. He was hit half inch below and one and a half inches to the left of the umbilicus. The accident was at two in the afternoon and he was brought to me at six. After some hours I got permission to operate, and did so late at night, assisted by Dr. Cuypers. A three-inch incision over site of wound revealed four openings in the small intestine, which were closed with fine silk; Halstead's suture being used. A little fæces had escaped into the peritoneal cavity, but not much; the abdomen was flushed out with hot water and a good deal left in. The mesentery was not wounded and no bleeding was going on. The bullet was not found, neither were the pieces of his clothing that had been carried in. He rallied well, and at first it seemed that the wound would close. But a sinus formed, and pus, probably from dirty clothing carried in, formed a number of sinuses, which gave much trouble. He was in for a long time and underwent several operations to try and close the sinuses. But they were very deep and tracked inwards up to the aorta and back towards the lumbar region, and there was evidence of the psoas being involved. Despite this he improved and got fat. A good part of his fæces were passed normally, but the fæcal fistula was a nuisance to him, and he begged to have it closed, despite the fact that he took *chloroform* badly. I first tried to wear down the spur by a drainage tube, Bank's method, but as this failed, he insisted on the fistula being closed. I first tried to do an extra peritoneal operation, but found I could not separate the adhesions outside the bowel and spent unnecessary time over this. Finally I cut down on the gut and closed the opening with Lembert's sutures. I am sorry to say he died from shock about eight hours after, very suddenly and unexpectedly.

My last case came to me last year.

A man was brought to our hospital one evening last November, having been stabbed in a quarrel the night before. One stab was in the left lumbar region over Petit's triangle, the other was in the left nipple line, below the eighth rib; it had therefore missed both pleura and lung. The knife he was stabbed with was about five inches long by about one inch broad. Although neither wound, on probing, appeared to be deep yet the man looked ill; had a peritonitic pulse and was in pain. He was put on *mag. sulph.* and *nepenthe* and *strychnia*. He was passing black tarry motions from the bowel and vomiting was continuous and at times faecal. As permission to operate was refused this treatment was continued. His general condition seemed to improve somewhat, but the peritoneum was evidently becoming more involved, as evidenced by increasing distension, free fluid in the peritoneal cavity and pain, which was controlled by *morphia*. On the evening of the fifth day it was noted that there was some glossiness and œdema at a point to the right of and below the umbilicus; his vomiting was better and his *morph.* had been reduced. Permission having been obtained to operate and the man himself being urgent that we should do so I performed abdominal section the next morning, assisted by Dr. Booth; Dr. Gough giving *chloroform*. The incision was four inches long in the middle line, afterward prolonged around the umbilicus another three inches to get more room. The abdomen was full of bloody fluid, which was offensive; the intestines were deeply injected, much distended, covered with lymph, adherent by recent lymph, and in patches of a greenish yellow appearance. They seemed not to have lost their resiliency, but as an attempt to let out gas and so reduce distension by puncture with a hypodermic needle was not a success, I think they must have done so. One gangrenous looking patch was adherent to the abdominal wall and probably corresponded to the œdematous patch noticed before operation. Exploration of the pelvis with the hand and partial turning out of the intestine showed no collection of pus. There were no fæces in the cavity and no food. The abdomen was well flushed out with hot boiled water and closed; drainage being provided at the lower angle of the wound, the patient never thoroughly rallied and died soon after. I can only suggest that the blade of the knife must have penetrated the abdominal cavity through the posterior wound and set up a toxic infection which an earlier operation might have successfully combated.

I hope these few notes, though they cannot pretend to anything very original or striking, or even successful in the way of treatment, may at least prove interesting as showing the kind of cases we are sometimes called on to treat; and instructive from their mistakes if for no other reason.

RAYNAUD'S DISEASE.

By ELLIOTT I. OSGOOD, M.D., Chu-cheo.

A case was brought into my clinic about the 5th of February. The man was forty years old, a street hawker of eatables, having been one of China's unfortunates who had been driven from his native province (Shantuug) by famines. He had lived from hand to mouth ever since.

He had been selling Chinese doughnuts about the town one morning when he was attacked with shooting pains in his limbs and began to be feverish. He returned to his lodgings and went to bed. The pains had increased and extended over his entire body. Burning pains were experienced in the stomach, creating a constant thirst. Every movement of the body added to the pain.

When brought to us there had been no cessation of the trouble. His feet were bloodless and cold to the touch. When asked if they were cold, he said, "No." They evidently had become numbed. It looked like a case of multiple neuritis, but the next day's development changed our diagnosis.

Both feet turned greenish black; blisters rising on the ankles as if burnt. The fingers of the right hand were also covered with blisters. Gangrene was very apparent and on the feet symmetrical. The hand healed in a few days with loss of only the outer skin and one affected nail.

The feet, however, grew daily worse. The heart was feeble and rapid and the prostration marked. We feared bedsores, and so in spite of the pain it caused, tried to vary his position. Then we found a patch of gangrenous tissue starting from the middle line of the sacrum extended to the left. There had been no pressure here, so it was not a bedsore. We turned him onto his left side, but a bedsore started on the crest of the ilium almost immediately. There were slight patches on the inner surface of the right knee and over the greater tuberosity of the humerus. We were limited to laying the patient on his right side, where fortunately no tissue gangrened.

The hands and arms troubled us a great deal, as they would swell whenever the shoulders were cramped. The back of the hands would be filled and the skin become pearly white. To move the hands or arms continued to give pain.

The feet grew worse until only the thick skin on the ball of the foot retained anything like natural color. The skin peeled off and disclosed

a moist, greenish, and mottled surface underneath. The right leg just above the external surface of the ankle developed a sinus and discharged great quantities of pus. This pus burrowed into the connective tissue surrounding the gastrocnemius muscle, but seemed to be discharged from the foot. Lines of demarcation appeared above both ankles, completely surrounding the leg. The left leg showed like marks of containing pus at a later period.

The patch of gangrene over the sacrum extended onto the left side, three inches wide by over four inches long. Lines of demarcation formed and a slough one inch deep was removed. A thin slough but larger in area was also removed from over the left tuberosity of the ilium.

The pains in the stomach lessened and pain largely disappeared, except when the patient was moved. He evidently was getting a little better. It was likewise evident that he would lose both feet.

One evening, after he had been in the ward about twenty days, the attendant came in hastily and said the patient was dead. Our attention had not been drawn to him on that day and we at first thought his death due to pyemia or septicemia. But upon examination we found the dressings over the sacral ulcer and the bedding under his hips, soaked with blood. His death was due to hemorrhage. As usual it was impossible to perform a *post-mortem* examination.

Raynaud's disease seems to be both uncommon and obscure as to origin. One author (Hyde) says: "There is a growing suspicion that many cases are of syphilitic origin." It sometimes succeeds tuberculosis, diphtheria, diabetes, and like diseases. In some cases the cause has been traced to the eating of food made from wheat affected with smut or ergot. The physiological action of this drug is very similar to this disease. Cases of poisoning have been reported where all four extremities have been lost through the virulent action of the drug exciting extensive gangrene. In the case cited, the cause could be traced neither to a syphilitic or an ergot origin. The disease is more common in winter.

It seems to be due to a disturbance of the vaso-motor system. Local asphyxia attends the gangrene. There is venous stasis, and degeneration of the arteries may ensue. Where the line of demarcation readily forms the prognosis is more favorable, but the degree of prostration and extent of the lesions must be taken into consideration.

Arsenic is the leading internal remedy. Tonics, electricity, friction, with alcoholic preparations, and heat applied to the affected parts are useful as adjuvants.



CASE OF BANTI'S DISEASE.
Liver and Spleen marked in Indian ink.



CASE OF MYCOSIS FUNGOIDES.

CASES OF MYCOSIS FUNGOIDES, BANTI'S DISEASE,
AND OBLITERATING ARTERITIS.

By Drs. GEO. F. STOOKE and ANDREW GRAHAM, Ichang.

We have lately had in our wards three rather unusual cases, and thought a report of them might prove of interest.

MYCOSIS FUNGOIDES.

A shopkeeper (male), aged forty-six, stated that five years ago in a quarrel the palm of his left hand had been badly scored with a knife. The wounds suppurated, and were treated by a native doctor, who rubbed in musk. An eczema started on this site, which had never really healed, and the eruption caused him much annoyance with the burning feeling and the intense itching it gave rise to. No treatment he had tried ever relieved this eczema. The eruption gradually spread between the roots of the fingers and on to the back of the hand, and by the third year was present on the back of the lower arm and had spread over the fingers. These eczematous areas never at any time spontaneously disappeared. They were confined entirely to the left arm and hand, never appearing on any other part of the body. On the outer side of his left upper arm is a patch, which has the appearance of having been blistered by the sun. He does not think this is the disease starting there, for the original eruption was not like this. In the fourth year these patches gradually grew in size (he was not sufficiently observant of the course of his disease to have remarked accurately the second or lichenous stage) until they became tumour masses. The tumour masses are of sizes varying from a bean to an orange. They have a pulpy feeling as if full of jelly. None of them are pedunculated, but all are sessile and closely set together, and it is from the deep sulci between them that a very sickening and offensively foetid pus flows; the odour being only relieved by prolonged immersion in an izal bath. A few of the tumours are beginning to fungate, looking as if they had been bruised. The tumours have steadily grown and never at any time spontaneously disappeared. They are neither painful, nor itchy, nor are they anæsthetic to the touch; the patient being able to exactly locate any tumour touched. With the appearance of the pus the axillary glands became hard and inflamed and are now discharging from several sinuses. Cachexia too is beginning to develop and the patient has come to hospital willing for amputation that he may be freed from his offensive and burdensome member.

Examination of the blood revealed no leucocytosis, nor any abnormality. No ray fungi were discoverable in the pus. He denies any history of syphilis, and there are no signs of that disorder on his person. Leprosy, he says, is prevalent in his native town, but none of his relatives are affected. During the whole course of the disease he has never had any patches of anæsthesia on his arm. He suffers from no general lymphatic enlargement and the spleen is normal in size.

The antecedent skin eruption lasting four years and followed by the development of multiple tumour growths having a tendency to fungate form the chief basis of diagnosis. Epithelioma, actinomycosis, and leprosy were the three conditions thought of before the patient's history was elicited. The initial lesion, lasting four years, seems to have been a pure eczema ; there was no ulceration and no warty growth resembling epithelioma. The pus showed no fungus as may be obtained in actinomycosis ; there were no sinuses over the affected area, nor were there any signs or symptoms denoting the presence of any internal growths. The absence of anæsthesia, leucodermic patches, and skin changes due to the loss of trophic nerve stimulus, served also to exclude leprosy.

The chief points of interest in the case seem to be : the definite origin of the disease at the site of an injury and its remaining absolutely localised to the hand and arm, not appearing in any other portion of the body. The arm has been amputated just above the elbow, and whether this will result in perfect cure and non-recurrence, will be watched with interest.

BANTI'S DISEASE.

A farmer named Chang, aged thirty-four, sought admission to our hospital, complaining of breathlessness, cough, general weakness, and of a swelling of the abdomen. He said he had been suffering from anæmia for five years. He had always been in fairly good circumstances as to food and surroundings. He had had no previous illnesses or accidents. He had never suffered from syphilis or malaria. On admission he was seen to be very much emaciated and very anæmic. There was no jaundice or general dropsy, but a very marked ascites. The abdomen was very tense and the veins over it much dilated. There was slight œdema at the base of each lung. After tapping the abdomen and drawing off 420 ounces there was no difficulty in seeing and palpating a very much enlarged spleen ; the notch was marked and the surface quite smooth and the organ extended below the level of the umbilicus. The liver was also slightly enlarged, reaching about an inch below the costal margin. There was nothing else abnormal about the abdomen. The

fluid drawn off contained albumen, but no blood, bile pigment, or abnormal cellular elements. Never was there any pain or tenderness complained of. The heart sounds gave the ordinary hæmic murmurs. No general lymphatic enlargement was to be made out. He had no history of hæmorrhages from any of the mucous surfaces.

In the out-patient room a diagnosis of spleno-medullary leucocythæmia was made, tentative of course to a microscopical examination of the blood. When, however, that was made there was seen to be no increase at all of the white blood corpuscles, but rather a leucopenia, nor were there present any of the typical myelocytes always associated with this form of leucocythæmia. We then decided it must be a case of splenic anæmia, or Banti's disease, which may be defined as a profound anæmia which has lasted three to five years or longer, associated with marked enlargement of the spleen and to some extent of the liver, the blood showing no leucocytosis, and finally terminating in a stage of ascites. In arriving at this diagnosis, chlorosis, pernicious anæmia, and leucocythæmia were easily excluded by the microscopical examination of the blood. Ordinary hepatic cirrhosis was also excluded by the fact that none of the known causes of that disease and none of the common vascular changes were present, and moreover the splenic enlargement was out of all proportion to that of the liver. Cancer of the peritoneum was thought of, but the entire absence of pain and tenderness and the result of the examination of the ascitic fluid excluded that. The diagnosis therefore was that of a case of Banti's disease in the last—the ascitic stage. Our patient had all the ordinary signs of profound anæmia, and these had lasted for a period of five years. He had great ascites; 420 ounces being drawn off the first time, and the fluid collected again so quickly that in eight days, the same amount was drawn off. The next interval was ten days when 400 ounces were removed. The blood examination showed a reduction of the red cells to 2,500,000 per c. mm.; there was a marked leucopenia and no abnormal white cells could be discovered.

He was put on general treatment for his anæmic condition. The spleen was so large that excision in his emaciated and weakened condition was out of the question.

The patient gradually lost strength and became more and more emaciated. He finally refused to eat, and after being in hospital forty-four days he, one bitterly cold day, demanded to be allowed to go home. We tried to persuade him to remain, but he went, and in a few hours was carried back practically moribund, and he died the following day. Unfortunately we were denied a *post-mortem* examination.

OBLITERATING ARTERITIS.

The patient, a scholarly man, aged thirty, gave the following history: Six years previously he had been badly exposed on a cold snowy day. In the evening he had dried himself without changing before a hot fire, and that night his feet swelled so much that he could not remove his socks. This condition was relieved in a few days. Later his left big toe became painful as if badly bruised (no tingling sensation was ever experienced), and it soon became quite black and very cold, feeling as if it had been frozen. The toe got no better, and finally it died and dropped off. Later the remaining toes of his left foot also became gangrenous, and finally separated at the tarso-metatarsal joints. A year or so later he was paring his toe nails, and in so doing slightly injured the skin of his right big toe. Soon the toe grew very painful; he put on a plaster, which did no good, and finally gangrene set in and the toe separated. The wound healed, save in one small spot, which gave no trouble during the summer months, but so soon as winter set in, the scar broke down and pain started in the four remaining toes, which grew black and cold and finally gangrenous. Then he came to us with a gangrenous right foot, showing a very faint line of demarcation over the tarso-metatarsal joints. The left foot showed a natural amputation, a very fair Lisfranc's. He gave no history of syphilis, but told of an ulceration he had suffered from when sixteen years of age. Two scars were still visible on his right shoulder, more like tubercular than syphilitic scars, which marked the beginning and ending of the ulceration which had extended right round the neck, to use his own expression, "like a coiled snake." His urine was normal, and there were no signs of chronic kidney disease. His arteries were quite normal to the touch, but arterial pulsation could not be felt on deep pressure in the popliteal spaces. During the attacks he can never recall anything like an hæmoglobinuria so common in Raynaud's disease.

We operated on the gangrenous foot, performing a Syme's. When it came to the time for securing the vessels we were much surprised to find none to tie; no open vessel was visible anywhere, and when the tourniquet was removed only a very slow oozing occurred. Not having permission for a higher amputation we stitched up the flap, hoping it would possess sufficient vitality to ensure union. All did well until the third day, when a prolonged bleeding occurred, evidently venous, and not severe enough for interference. This bleeding lasted two days, gradually ceasing. In ten days the flap still showed no signs of healing, and finally after waiting a few more days we cut it away with scissors,

when there was still no bleeding, and the stump has since gradually granulated over; a small section of the tibia separating in the process.

We were much interested to read in the April C. M. M. JOURNAL of the cases of syphilitic gangrene described by Dr. Ewan, of Chen-tu, and are wondering whether our case could be classed under that heading. There was no history of specific mischief save the serpiginous ulceration in his sixteenth year, and he has grown very fat and flourishing and with no anti-syphilitic treatment. Before operating we had diagnosed Raynaud's symmetrical gangrene, but at the time of operating the condition was seen to be not a mere arterial spasm, which is the essential characteristic of Raynaud's disease, but an absolute obliteration of all the vessels which had become mere fibrous tissue like their surroundings. Perhaps our case will be best described after Treve's terminology in his *System of Surgery*, Vol. 1, p. 559, as one of "obliterating arteritis," of which he says: "This name has been applied to a rare disease occurring independently of syphilis, tubercle, gout, rheumatism, or other constitutional malady, and independently also of embolism or injury. It is most often seen in persons of middle age. The disease is characterised by a great proliferation of the endothelium which gradually narrows the vessel until it occludes it. The new tissue organises into fibrous tissue, new vessels passing down into it from the vasa vasorum. The parts supplied by the affected arteries are pale and cold, livid on exposure, wasted, and the seat of pain which may be intense. Dry gangrene of the extremities may occur. The disease stands in need of a distinctive name, for other forms of arteritis are equally 'obliterating,' 'proliferative,' and 'hyperplastic;' for this we must wait until its cause has been ascertained."

WHY THE STOMACH DOES NOT DIGEST ITSELF.—"When we consider the extraordinary dissolvent potency which the juices of the human stomach must possess in order to digest the strange assortment of substances that we are in the habit of putting down our throats, we wonder how it is that these juices do not turn the walls of the digestive tract and the whole digestive apparatus into chyme and chyle. The digestive tract is filled with ferments capable of dissolving food; but these ferments do not attack the intestinal walls, nor the parasitic worms that often live there. Recent investigations, conducted by E. Weinland, have shown that this immunity is due to the secretion by the living tissues of certain anti-ferments. The following interesting experiment was made: A mixture of fibrin and trypsin or pepsin was prepared, and, after the addition of a small quantity of the juice of ascarides, or round worms, it was found that no digestion of the fibrin took place. The ferment did not attack the fibrin even when no more of the juice of parasitic worms was added for an hour. It is thus not the living tissues that resist digestion; it is the juices that impregnate them, which they themselves have produced."

SOME SEQUELÆ OF MIDDLE EAR INFLAMMATION.

By W. H. JEFFERYS, A.M., M.D., Shanghai.

Ear surgery is not among the most satisfactory branches of practice even at home, and in China the conditions are particularly unfavorable. We see almost monthly exaggerated cases of aural polyp which, although surgically operable, we are now in the habit of refusing to treat because we cannot obtain the conditions necessary to success. These polypi have been uniformly large, that is, filling the whole middle ear and external auditory canal and usually protruding in such a way as to fill the concha as well. The tympanum is destroyed and the attachments of the polypi are so general and extensive as to render the use of the snare impossible. In most cases there is disease of the cartilage and of the bony walls of the middle ear, with of course partial or entire destruction of the ossicles.

In the past year we have seen about twelve of these cases. I cannot say that the ætiology of all is the same, though I believe it to be so, namely an initial inflammation of the drumhead produced by the use of the instruments with which the Chinese barber cleanses the external auditory canal. You know the instruments well—a long pair of iron forceps, usually rusty and rough, a brush with a long handle, and a couple of small scoops of variable shapes. The instruments are at least in some cases handled with considerable skill and delicacy. The barber well knows how to draw back the auricle and illuminate the canal. He sees what he does and is gentle in his manipulations, as is evidenced by the fact that he gives no pain but rather, on the contrary, the process is apparently enjoyed by the victim. I say victim advisedly, for I believe that this manipulation is a common cause for the train of evils of which the polypi I describe are a stage. The instruments are dirty to a degree; they are used upon one victim after another without any adequate purification and they are rough and crude. And what is of greatest importance, the practice would be deemed inadvisable, not to say dangerous, if carried out under the best conditions of cleanliness and care. The cleansing of the canal should never, as a routine, be performed with metal instruments. I have regularly put the question to these patients. “Do you allow the barber to cleanse your ears?” and in every case the answer has been “Ycs.” This is certainly significant in view of the fact that many Chinese do not allow the barber to do this, just as many of us are in the



A.

TWO CASES OF ADVANCED AURAL DISEASE.



B.

St. Luke's Hospital, Shanghai.

Photos by W. H. Jefferys, M.D.

habit of restricting the barber's manipulations, preferring not to be too much fussed with.

The first case that presented I operated upon after dispensary hours, treating the man as an out-patient. *Cocaine* was used and the process was painless. There was considerable hemorrhage, and I did not get the thing very thoroughly cleaned out. In spite of directions the patient only returned twice for after treatment, and this at too long intervals. Finally after a month or more he returned with the ear filthy and the growth larger than on his first appearance. He would not come into the hospital and I refused to treat him further as an out-patient.

The next patient that I undertook to treat was admittèd to the wards and operated upon after a day or so. He complained before operation of pain under the jaw on the left side. This was the side of the polyp. There was some fever and some induration. The operation was more thorough than the last and the after treatment could have been carried out fairly well, but the abscess under the jaw, for so it prove, assumed serious proportions and finally cost the patient's life. The operation on the polyp was done with *cocaine* and *adrenalin*; the instruments used were scissors, scalpel, curette, etc. The snare would not have been of any service. Two days following this operation I put the patient under *chloroform*, made a deep incision along the line of the lower jaw and another at an angle with it down the neck to meet the sterno-mastoid. The deep fascia was dark, and there was foul pus underneath it, which proved to come from the inner surface of the lower jaw bone, and when followed as high as possible was traceable to the parotid behind the tonsil. Rubber drainage was put in, but the patient succumbed to toxæmia. There was undoubtedly gangrene of the deeper tissues in front of the middle ear. This condition was developing at the time of the patient's admission to the hospital.

After these experiences I made the rule that I would only operate for this condition upon patients who would guarantee to remain in the wards for at least six weeks and who would be willing to undergo three or more operations if necessary. We have not been able to obtain these conditions and have not operated since. At the words "six weeks" the patients rise from their seats and at "three or more operations" they may usually be seen on the horizon still in rapid motion. Willingness to submit to treatment extensive in time is harder to obtain than any degree of treatment in concentration.

Two cases, of more than passing interest have come under our care which represent advanced stages of aural disease in Chinese, though neither probably followed the course of the cases of which the foregoing are types. A. is the final result, as far as the mastoid is concerned, in a case of chronic mastoiditis. The patient was nine years old. The trouble began with catarrhal otitis media at about three months of age. It went through the stages of destruction of the drumhead, ossicles, cartilage, and mastoid cells in turn, finally perforating externally and forming a circular hole about the size of a small cigar. Inside the mastoid was hollowed out completely. The inner table was gone, and there seemed to be nothing but a shiny thin membrane between the cavity and the brain. There was a good deal of filth inside and some cheesy pus. An opening in the wall of the canal communicated with the ear in front and an opening deeper in with the middle ear. One could see into the eustachian tube. The patient was rebellious to treatment and all operative help was refused. The cavity was cleansed and studied carefully. Some slight hearing seemed still present on this side. I will not vouch for the fact, however. A flexible probe could have been passed through this round opening into the middle ear and down into the pharynx.

B. represents the case of a middle aged man with ear disease of one year's standing. The lower third of the auricle was ulcerated off and the margin formed a free sort of hook-shaped projection. The middle ear and the mastoid were freely exposed by ulceration and the posterior wall of the canal was gone, making a free but superficial groove leading from the canal into the mastoid cells. The posterior probe is placed deeply in the mastoid, the anterior is in the middle ear. There was free purulent discharge and some pain. It was foul and filthy. There was a vague history of some venereal trouble in the part. In appearance the ulcerative process was syphilitic, and as there was rapid healing under local measures of cleanliness, combined with mixed treatment, I believe that this was the nature of the process. The condition when last seen by us was dry, healed with a smooth funnel-shaped opening into the middle ear. Suppose this were not syphilitic, it is such a condition as one would expect to see as a late stage of the polypoid trouble.



A CONGENITAL DEFORMITY.

A CONGENITAL DEFORMITY.

DEAR DOCTOR: I send you herewith a photo of the hand of a Chinese man twenty-eight years of age. The thumb, ring, and fifth fingers are normal in size, while the first finger is slightly and the middle finger enormously enlarged; the finger nail being almost as large as a twenty cent piece. So far as I could observe the man was normal in every other respect. He and his mother both say that the enlargement was congenital. I have searched my library in vain for a scientific name for this condition; perhaps you may be able to supply it in case you think the photo worthy of a place in the C. M. M. JOURNAL. By the way, I must thank you for the interesting array of photos you gave us in the January number. I do hope that our brethren may write more this year. The new dress is quite an improvement.

Yours truly,

O. T. LOGAN.

[NOTE.—The word "gigantism" (local or general) or perhaps giantism has been used for similar conditions. It is not a dictionary word.—EDITOR.]

DRUGS FROM JAPAN.

[The Editors take pleasure in publishing the following letter from Dr. Maxwell on the subject of supplies from Japan. It covers the ground pretty well, and may be relied on as far as it goes. We expect to obtain further information in the near future.]

E. P. MISSION, TAINAN, FORMOSA, }
May 17th, 1904. }

EDITORS JOURNAL: In the last issue of the JOURNAL, just to hand there is a letter from Dr. McAll asking particulars about Japanese drugs. As I have been using a large quantity of Japanese drugs the past three years my experience in the matter may be of interest to your readers.

I will make my remarks under two heads.

1. Quality.

With regard to the drugs commonly used, say such drugs as *potas. iodidi*, *iodine*, *ammon. carbonate*, *ferri sulphas* and so on, the quality is, I believe, as good as that obtained from England; in fact I believe I am not mistaken in saying that considerable quantities of the two former are exported to Europe.

With regard to tinctures, on the whole I think these are satisfactory, though there are one or two exceptions, such as *tinct. lavandulæ co.*, which, being very poor indeed, make me wonder sometimes if the other tinctures are equal to our home ones. On the whole, however, they answer the therapeutic test perfectly well. With regard to the alkaloids as *morphine*, *strychnine* and *quinine*, the last of these I have never bought actually from Japan but bought from local Japanese firms here; it is very poor indeed. I still get all my *quinine* from England and also *morphine*, *strychnine*, etc., which though seeming to act all right when bought from Japan, are very coarse in their appearance.

2. Price.

At the request of our Home Committee a year or so ago I prepared a table of such drugs as I was buying from Japan, comparing them with the prices of the same drugs bought from one of the leading English firms.

The orders I dealt with came to a mixed total of 2,000 odd pounds of drugs costing from the English firm £106.7.1, delivered duty paid; this was calculating that all spirituous preparations were bought "duty free" in England. The same drugs bought and delivered from Japan cost £72.16.4½, a saving of £33.10.8½.

Of course it must be stated that while English drugs have to pay a ten per cent. duty here, Japanese drugs are admitted free.

Now with regard to drug merchants in Japan. I get my own drugs from Z. P. Maruya & Co., Yokohama, but I do not wish to act as an advertiser of any one firm and I believe the same drugs may be obtained still more cheaply from some of the manufacturers in Osaka. The reason I deal with the above firm is that they issue a monthly price list or rather sheet, very incomplete but in English, and there is no difficulty in corresponding in English with them. I do not myself know of any other firm that issues an English list at all, but there very likely may be others. With regard to instruments these are much cheaper than those purchased in England, but it must be quite clearly understood that no instruments of Japanese workmanship compare for a moment with those of the best English houses.

They are, however, for practical purposes very useful, and I have myself used eye instruments made in Japan with great satisfaction. What I mean is that for strength and finish they do not compare, but for practical utility in the large majority of cases they are quite good enough and probably not more than a quarter the price. I know of no Japanese instrument maker which issues an English price list.



MISSION COMPOUND.



WAITING ROOM.

ST. JAMES' HOSPITAL, NGANKING, CHINA.



DRESSING ROOM.



GENERAL WARD.

ST. JAMES' HOSPITAL, NGANKING, CHINA.

Just one more word. The Japanese have not acquired the art of packing drugs like our home firms, and there is a decidedly larger percentage of breakages in drugs supplied from Japan. And proportionate to the distance the shipping charges are very heavy.

Trusting these notes may be of use to your readers who think of using Japanese material,

I remain, yours sincerely,

JAMES L. MAXWELL, M.D.

ST. JAMES' HOSPITAL, NGANKIN, CHINA.

This hospital building cost \$3,000 Mexican ; built entirely by day labor.

The foundation is deeply laid and the walls up to the level of the ground floor are of heavy brick, built solid. Above this heavy bricks are used, but the walls are of the usual Chinese style—hollow—up to the level of the top floor being filled in with rubble, clay and mortar, making it a heavy wall. Floors, roof, etc., rest on the timber framework.

The ground rises toward the back of the lot, and advantage was taken of this to provide a small store room for drugs, under the consulting room, and to raise the floor of the operating, dressing, sterilizing, drug, and consulting rooms three feet above the level of the floor of the waiting room. The waiting room floor is of brick and is on a level with the front court. The room is fourteen feet nine inches high.

The floors rest upon squared sleepers six by ten inches and are two feet apart.

Ceilings are open, painted white. The flooring is of 'sha muh' 杉木 ; one and a half inch thick and four inches wide, tongued and grooved. When building, the floor boards were prepared, placed in position and left for three months to dry, then forced close together and nailed. Two coats of 'Chinese' raw oil were applied and then finished off with a coat of native varnish similar to 'Ningpo' varnish.

Ventilation is provided for by inserting a square of perforated zinc in place of one pane of glass in each window. The windows are double and open inward on hinges. All windows on the north, south and west sides are protected by shutters made in foreign style ; the windows on the east side are protected by the veranda.

All parts of the building, excepting the doors, windows, shutters and stairs are of Chinese form of architecture.

The only stove in the building is the one used in the dressing room for boiling water.

Two points of special interest are to be noticed in this building.

1st.—Capacity and convenience in relation to cost.

2nd.—Space gained by locating the stairway outside of the building, permitting, as is here seen, a convenient arranging of the dressing, drug and consulting rooms.

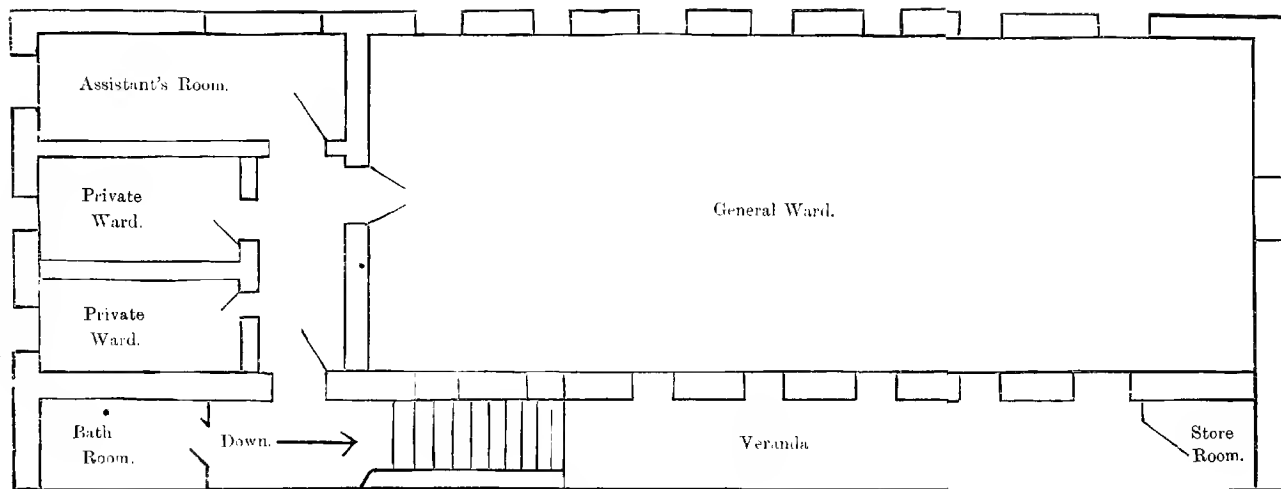
“ But if, impatient, thou let slip thy cross,
Thou wilt not find it in this world again,
Nor in another ; here, and here alone
Is given thee to suffer for God's sake.
In other worlds we shall more perfectly
Serve Him and love Him, praise Him, work for Him,
Grow near and nearer Him with all delight ;
But then we shall not any more be called
To suffer, which is our appointment here.

Canst thou not suffer then one hour,—or two ?
If He should call thee from thy cross today,
Saying, It is finished !—that hard cross of thine
From which thou prayest for deliverance,
Thinkest thou not some passion of regret
Would overcome thee ? Thou wouldst say, “ So soon ?
Let me go back and suffer yet awhile
More patiently ;—I have not yet praised God.”

And He might answer to thee,—“ Never more.
All pain is done with.” Whensoe'er it comes,
That summons that we look for, it will seem
Soon, yea too soon. Let us take heed in time
That God may now be glorified in us ;
And while we suffer, let us set our souls
To suffer perfectly ; since this alone,
The suffering, which is this world's special grace
May here be perfected and left behind.”

(Ugo Bassi's Sermon in the Hospital. King.)

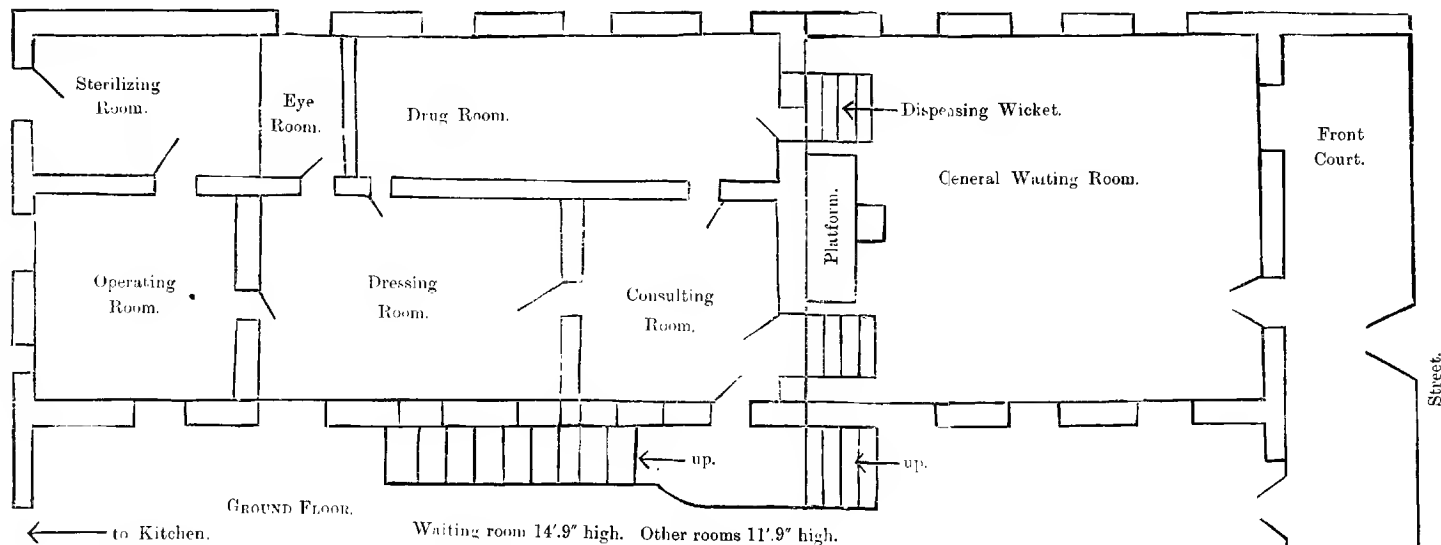
Open Court for Patients, 35' X 35'.



FIRST FLOOR.

All rooms 10' 10" high.

Open Court for Patients, 35' X 35'.



GROUND FLOOR.

Waiting room 14' 9" high. Other rooms 11' 9" high.

ST. JAMES' HOSPITAL, AMERICAN CHURCH MISSION, NGANKIN, CHINA.

Women's Ward
Women's Waiting Room
Gate Keeper

The China Medical Missionary Journal.

VOL. XVIII.

JULY, 1904.

No. 3.

Editorial.

Under date of May 27th, the following letter comes from Messrs. S. Goto, Fu-undo, dealer in instruments and apparatuses, apothecary, etc., of Awajicho, Kanda, Tokio:—

DEAR SIR: As my new catalogues have been printed, I, herein, have the honour to hand three copies wishing to have your further extensive order, and to be recommended to your friends.

English catalogue is now translated and expected consequently to offer you within 6 months.

DRUGS, NEW AND OLD.

Not long since we received the following letter from Merck, the famous German wholesale druggist:—

DARMSTADT, *March 16th, 1904.*

EDITOR MEDICAL JOURNAL.

DEAR SIR: Confirming my last of 26th ult. I mailed to you to-day several publications re some of my newer preparations. Would it be asking too much if I propose to you to kindly review some in the editorial columns of your paper? In my opinion the publications are well worthy of interest for your readers.

Thanking you beforehand, I remain, Dear Sir,

Yours faithfully,

E. MERCK.

The letter will serve as a good text for certain remarks that we have for some time past desired to make editorially. It is accompanied by a large bunch of notices and more extensive comments on various new preparations of old drugs and on the other new drugs, the simple reading of which would take one several days.

There are at the present time a goodly number of drugs and preparations of drugs in the officinal pharmacopœias of which it would not be unfair to say that we could dispense with nine in every ten with great advantage. Besides these there are several dozens of

reliable wholesale firms who are yearly putting thousands of new preparations on the market, the vast majority of which will never prove of any benefit to medicine and never be taken up by the profession. Both these forms of accretion are natural processes and serve their good ends. It is well to be reasonably conservative in the discarding of old drugs which have proved of use and it is preëminently useful and right to push forward in the sinthetic manufacture of substances which possibly prove to be drugs of great usefulness and in the revision of our preparations of old ones. The former process is being undertaken too conservatively by far, we think, by our various pharmacopœia committees and the latter very energetically by the many first class wholesale firms.

But the hard working practical man or woman very naturally becomes lost in the cloud of doubtful new names and worthless old ones that is constantly blown around him and he grows desperate with it all and seeks light and truth in simplicity and sureness. The tendency of the druggist of to-day is to envelope the practitioner in a cloud of new names and samples and compel his patronage by copyrighting the same. They may be exactly the same as certain preparations of other firms, but we cannot tell. As a reaction from this the tendency of the practical physician is to cut down his drug list to those he knows all about, to decline the use of any drug till he knows what it truly is and can obtain it on the open market, and just as he has simplified his individual prescription from twenty-one or two ingredients, so to simplify his armamentarium from infinity to the very finite.

This is all of special application to the missionary physician. As we look over Merck's latest list, it contains about thirty new names, we do not know whether we have ever used the drug before or not, but we have certainly never used them under their present names. We have tried samples of "Veronal" and found it a reliable hypnotic. We happened to try this because we had no trional one night and wanted a simple hypnotic. Ordinarily we do not think it is wise for us to try experiments with drugs on the Chinese. They have too little faith in our drugs now. There may be in this list some treasures which in the future will prove as fine as *antipyrin* or *trional*, but it is not for us to prove this in China.

In China it is our business to use only drugs that we know the use of and the efficiency of, to use the best drugs for each purpose, to buy them from the best makers (and it is only fair in answer to Merck's letter to say that the firm is one of the four or five most reliable firms we know of), to use them in sufficient doses and in the most appropriate form, which is usually the simplest. To try experiments with *mercoro-iodo-hæmol* or *bromipin* or any other unestablished preparations is not our legitimate business, and offers little prospect of doing good work for the Chinese or for medicine at large.

THE GENERAL MEETING.

The committee on arrangements for next winter's meeting of the Association desires to repeat its invitation to the members to present suggestions with regard to the best way of conducting the meeting and especially with regard to papers and members to write the same. There must be not a few of us who have been working along particular lines during the last few years and who feel ourselves sufficiently informed and prepared to handle special subjects with success. These are the names we must get hold of and these are the men the Society desires to hear from. The time is limited. Please write promptly to the Chairman or Secretary of the Committee.

From one end of China to the other the same conditions confront the medical missionary, excess of work and the inability to meet the demands of it either through lack of equipment or of assistants in adequate number to share the burden, so that many a good man and true has broken down prematurely and been obliged to return home.

Hundreds of bright young men are maintaining precarious existences at home and waiting for the older men to die off, when they might be doing ten, yes a hundred fold more good in the mission field.

Why is it that the cry for medical men meets with so feeble response in the hearts and lives of our professional brethren at home? Some give one reason, some another. But the underlying reason in all or most cases is the unwillingness to give up the

comforts of the life at home and the promise of pecuniary advancement, even though remote, for the unknown life which promises only continuous work and a nominal salary.

Surely it is one of our most urgent and highest duties when on furlough to bring before the young medical men of the home lands the great and pressing need of medical missionaries and to appeal to the profession at large for more intelligent support and encouragement. Theoretically it is ours already; it should be practically. "The harvest truly is great, but the laborers are few. Pray ye therefore the Lord of the harvest that He may send forth laborers into his harvest."

WHAT IS HAPPENING IN MANCHURIA?

It would be a source of real pleasure, not only to the editors but also to the readers of the JOURNAL, if we could have some news from our brethren in the seat of war. Perhaps they have already been requisitioned by the all-embracing Slav, either in their professional capacity to keep busy, or out of it, to keep quiet. In any event if they come through it without being put hors de combat we shall look for great things from them. As Mr. Kipling once said of a man who was going to write a book upon India, "that book will be worth reading and also worth suppressing." The same may be equally true of their reminiscences.

This is merely to remind them that though they may forget the JOURNAL, the JOURNAL does not forget them, nor cease to hope that the time may come when they will send us a greeting from their far off corner, otherwise the editors will be put to the painful necessity of hunting up biographical data for obituary notices which, if they had no other value, might at least raise the dead, or a protest from them.

The annual report of the Medical Missionary Society in China was received not long after the last issue of the JOURNAL. The pioneer medical organization in the field it has done most commendable work from all points of view. The writer had the pleasure of visiting the Canton hospital in December last and his chief regret is that the holiday season prevented his seeing much

of the work. The new medical college is a gem of its kind and it was another source of regret to him that it was not in session. The statistics of the Canton hospital speak for themselves. The Christian public at home, to whom we look for encouragement and support, can have but a meagre conception of what an important and useful work the society is doing.

It is a matter of regret that the report does not include any account of the other two institutions so closely allied with it—the Woman's Hospital under Dr. Fulton and the John G. Kerr Refuge for the Insane. It is probable that both institutions publish separate reports, though as yet we have not had the pleasure of seeing them.

Owing to illness in his family Dr. Jefferys has gone to Japan for the summer, so all articles for the JOURNAL and other matter for publication in the October number should be addressed to Dr. Lincoln, St. John's College, instead of Editorial Office, 4 B. Ming-hong Road.

We are indebted to Dr. Geo. E. J. King, of the Peking Syndicate, Ltd., of Wei-hwei-fu, Honan, for the following poem. In forwarding it, Dr. King writes: "I myself feel very strongly the importance of medical students cultivating the sentiments of tenderness, respect, and reverence for the bodies from which they learn anatomy; and which God made to be temples of the Holy Ghost. It used sometimes to jar very painfully on me to hear thoughtless young fellows giving vent to quite other sentiments about what sometimes were called the "stiffs"—and Chinese need to cultivate respect for the dead bodies and bones not of their own immediate ancestors."

"A FORGOTTEN TREASURE"

About seventy-five years ago the old *Morning Chronicle* published this now almost if not quite forgotten poetic treasure, and it immediately created much interest. Every effort, even to the offering of fifty guineas, was vainly made to discover the author. All that ever transpired was that the poem, in a fair, readable hand, was found near a skeleton of remarkable beauty of form and color in the Museum of the Royal College of Surgeons, Lincoln's Inn, London, and that the curator of the Museum had sent them to Mr. Perry, editor and proprietor of the *Morning Chronicle*. These are the lines:—

Behold this ruin ; 'twas a skull
Once of ethereal spirit full ;
This narrow cell was Life's retreat
This space was Thought's mysterious seat ;
What beauteous visions filled this spot,
What dreams of pleasure long forgot !
Nor hope nor pleasure, joy nor fear
Has left one trace of record here.

Beneath this mouldering canopy
Once shone the bright and busy eye ;
But start not at the dismal void—
If social love that eye employed,
If with no lawless fire it gleamed,
But through the dews of kindness beamed,
That eye shall be for ever bright
When stars and suns are sunk in night.

Within this hollow cavern hung
The ready, swift, and tuneful tongue ;
If falsehood's honey it disdained
And, where it could not praise, was chained ;
If bold in virtue's cause it spoke,
Yet gentle concord never broke,
This silent tongue shall plead for thee
When time unveils eternity.

Say, did these fingers delve the mine ?
Or with its envied rubies shine ?
To hew the rock, or wear the gem,
Can little now avail to them ;
But if the path of truth they sought,
Or comfort to the mourner brought,
These hands a richer meed shall claim
Than all that wait on Wealth and Fame.

Avails it whether bare or shod
These feet the path of duty trod ;
If from the bowers of Ease they fled,
To seek affliction's humble bed ;
If Grandeur's guilty bribe they spurned,
And home to Virtue's cot returned,
These feet with angels' wings shall vie
And tread the palace of the sky.

Correspondence.

SOOCHOW, }
April 7th, 1904. }

MY DEAR DR. NEAL: In the last meeting of our Soochow Medical Association Dr. Polk reported a conversation she had held with you in regard to the subject of a Medical Conference. The Association heartily approved of your plan and passed the following motion:—

That in view of Dr. Polk's report, the secretary be desired to write Dr. Neal requesting that a preliminary medical conference be called for the winter of 1904-05, the Executive Committee of the China Medical Association taking the whole matter of arrangements in charge. We also suggest the first few days of the China New Year as possibly the most suitable for all concerned.

We are certainly very much interested in the matter, and think there will be great advantage in a definite organization of medical societies in China and regular meetings as a whole association.

Very sincerely,

MARY ELLIOT FITCH,
Secretary.

WUCHANG, }
May 26th, 1904. }

DEAR DOCTOR: As you know, the arranging of a Conference again at Kuling this year was left with our Hankow Society. We have made a sincere and gallant effort to fix it up, but most of those asked to read papers have had reasons why they should not; and therefore will you announce in the next issue of the JOURNAL, that the formal Conference could not be arranged, but it is still hoped that some informal and help-

ful meetings will be held amongst the doctors up there. Many thanks. Let me congratulate you on your last JOURNAL.

With kind regards,

Yours sincerely,

CECIL J. DAVENPORT.

BASEL MISSION,
 KIA-YING-CHOW, via SWATOW, }
May 10th, 1904. }

*A Plea for the Introduction of the
 Decimal System into New
 Medical Books.*

DEAR EDITORS: I have been using the medical works translated by several medical missionaries for a number of years, but I felt it always as a great drawback to my Chinese assistants that the antiquated English weights and measures were being used in those books. The Chinese themselves use the decimal system in their weights and measures; so it seems to me a decidedly retrograde step to introduce this cumbersome system of ounces, drachms and minims and the arbitrary system of thermometry after Fahrenheit into books for people who have always been accustomed to the decimal system. Now as many medical works are being reprinted and revised after the new nomenclature I think it most advisable to bring these new books up to date in this respect too. In America and England the old system will be replaced by the new one in a very short time, as it has been many years ago on the Continent. I propose this matter to be made a subject of discussion at the general meeting of the Association next February.

I am, gentlemen,

Yours sincerely,

H. W. HENBERG.

CHANG-TEH, HUNAN, }
 March 29th, 1904. }

DEAR DOCTOR JEFFERYS: Having had great trouble in cleansing microscopic slides and cover glasses which had been once used, I wrote to Bausch and Lomb Opt. Co., Rochester, N. Y., for a method, and received the following:—

"Drop the cover glasses singly into a jar containing cleauing mixture and allow them to remain twenty-four hours. Rinse in clean water until all the coloring has disappeared. Place in ninety-five per cent. alcohol and wipe with clean soft linen cloth when needed for use."

The formula for the cleaning mixture is as follows:—

Dissolve eighty grams of *potass. bichromate* in 300 c.c. of warm water; cool, add slowly, constantly stirring, 460 c.c. of *sulphuric acid* c. p. This should make a mixture full of small crystals. Store mixture in glass-stoppered bottles."

I have not tested the method yet, but coming from such authority I feel safe in giving it to my brethren who may have troubles similar to my own. If you see fit you may publish this in the JOURNAL.

With best wishes,

Yours very truly,
 O. T. LOGAN.

T'UNG-CH'UAN-FU, SZCHUAN, }
 March 18th, 1904. }

DEAR SIR: I have only just *to-day* received my copy of the JOURNAL, "*In the Day of Beginnings.*" for January, and hasten to send you the blank filled up as far as I can. I am almost ashamed to send it; it is so small, for I am still in the day of beginnings, but I hope for better things in time. I have not been able to fill in the

items of value of land and buildings, as the rooms I use for the medical work are Chinese buildings; the rest of the compound being used for girls school and my own and companions' residence. The whole compound cost 1,200 taels. I am glad to add that we have just had permission from our Board at home to build a small hospital, and hope to begin almost immediately. On account of this I always read with special eagerness articles in the JOURNAL, about hospital plans and buildings, hoping to glean valuable advice and hints. But indeed I read the whole of the JOURNAL with great interest; it is very helpful.

I am, yours sincerely,
 LUCY E. HARRIS.

WEI-HSIEN, }
 March 24th, 1904. }

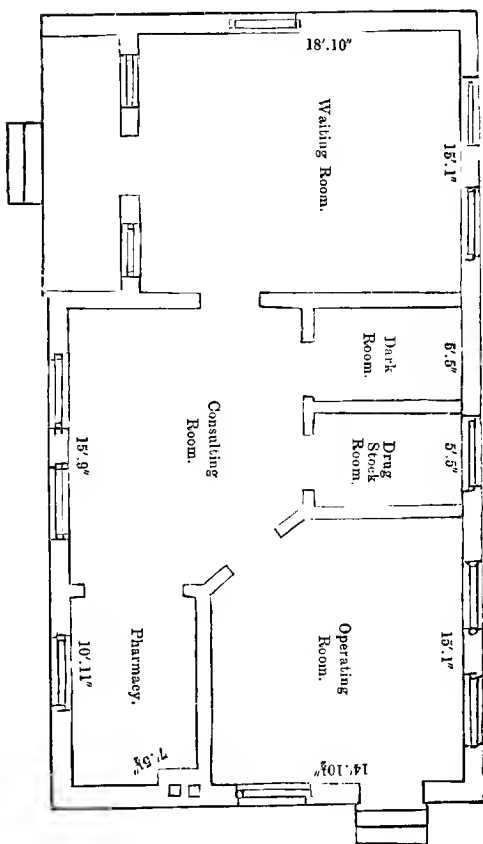
EDITORS JOURNAL: I enclose a report of a case *A Reconstructed Work.* which came under my observation a few months ago and which may interest some of your readers. I am also sending, under another cover, a photograph of the Women's Dispensary, Wei-hsien, rebuilt since the Boxer trouble and occupied since October, 1903.

The former wards, which consisted of two rows of isolated, one *chien* Chinese rooms, were the only buildings left standing when the compound was burned, consequently we are still occupying them instead of having a new foreign built hospital. The plan has its advantages and its disadvantages.

I enjoy the JOURNAL very much and feel that it is peculiarly adapted to our needs here in a way which the home journals are not.

With wishes for its future success,

Yours very sincerely,
 EDNA B. PARKS.



FLOOR PLAN.

NEW WOMEN'S DISPENSARY AT WEI-HSIÊN, SHANTUNG, CHINA.

LONG-KÜ-TSAI, *April 20th, 1904.* }
 (On the way to Kan-suh.) }

DEAR SIR: We have just made the 荊 boat journey from King-tsi-küan to Long-kü-tsai. It may interest your readers to know that along this district goitre is exceedingly prevalent. At one little village, through the middle of which ran down a mountain stream, I would guess at over fifty per cent. being afflicted. The people there generally did not look healthy.

Naturally, passing through as a visitor, I was unable to look curiously into the disease, but I noticed one man who appeared to be suffering from tracheal obstruction. The same man had one eye ill-covered and ulcerated. But I did not observe there or elsewhere any exophthalmos. The thyroid enlargements appeared to be cystic. The natives themselves put it down to the shüi-t'ü as they commonly do in the case of many ailments.

Believe me, sincerely,

JULIUS W. HEWETT.

—
 HWAI-VUEN, }
April 16th, 1904. }

DEAR DR. JEFFERYS:—It is rather late to be returning the slip; I hope that at least it is better late than never. I was much interested in your article in the January number of the JOURNAL. You are doing us all good in keeping us up to the mark professionally, especially in regard to asepsis and other matters affecting a good surgical technique.

In the main I agree with you in the necessity for preserving high standards for ourselves and our assistants. It is my constant dread, being alone here, that I may get careless and slovenly. The drag in that direction you can possibly know.

The presence of a colleague makes a great difference, and you are in the midst of a coterie of medical men. Here in Hwai-yuen I, through necessity, work under more adverse conditions than you do or else stop work entirely. We aim at asepsis and make a fair attempt, I honestly believe, in most of the essentials. Of half a dozen clean cases which would serve as tests we have so far uniformly got primary union. When we can buy land I expect to have much better conveniences and shall get the best I can under the circumstances.

I have said all this that you may know I agree with you in the main. Having done so, I should like to disagree in certain respects. You in the ports may "be in China—to establish scientific medicine," but for the present we in the interior have, especially in newly opened stations, an end that at least temporarily is much more important. It is by every means to make friends and allay suspicion, hatred and prejudice. A month's residence and work in a place like this would, I am sure, push this home on you in a very strong way. It would show the tremendous value of the end and the amazingly effective way in which our foreign medicine can accomplish it. It makes one exceedingly cautious, almost timid, in attempting surgery where there is risk of failure, but eager to do cases where the results are fairly certain, even though conditions might be such as to make it impossible to observe all the rules of the most rigorous technique. If a man under these circumstances refused cases because his roof were thatch and very obviously an improper one for an operating room, he would be a pedant and throw away the greater for the less.

I think you stated the case too strongly even for Shanghai. I do not believe that science should ever

be given a place in medicine *before* humanity. A physician's first end ought always *first* to be to save life and relieve suffering and second to advance the science. Our end in China is *first* to cure just as many patients as we can and do justice to them, and following that to establish the best kind of scientific medicine we can by keeping ourselves and assistants constantly striving for a better standard. Another point. Though the quality of a man's work does not depend on his distance from the coast that factor does enter into the calculation; you have not tried it perhaps, or can hardly speak authoritatively. Yet it is the business of a good man professionally to reduce this factor to a minimum, which need not be large I believe.

Another point where I would differ: an illustration of the principles we are discussing is the advisability of cataract operations where conditions are not perfect. You perhaps might refuse them in Shanghai, where the patient has other physicians he can call upon. In the interior he can only choose between remaining blind for life or accepting an operation under inferior conditions. Under such circumstances I am sure the right thing is to get things in the best order possible and then operate.

In closing let me thank you again for the article. It is just the thing we need to keep us up to the mark. I hope in differing from you it will not seem to be in a captious spirit.

I will send down by this mail a package of cotton rendered reasonably absorbent by ourselves. I am almost afraid to do so for fear you will think it something in the nature of a slim dressing. It is not so

much cheaper than foreign cotton that the price makes a great object. But I can only get supplies once a year, and it is worth while to have something to fall back on.

I was interested in your reports of cases and would like to hear more particularly of your preparatory treatment of the field for skin grafts. I had very gratifying success last year in a series of Thiersch grafts for a distressing case of scrofulous ulcers circling the neck. Also particulars as to the transplanting of grafts. I have always been used to the Thiersch method, but should like to try the other.

I hope very much to see a little of your work when I go to Shanghai in the fall.

With good wishes,

Yours very truly,

SAMUEL COCHRAN.

NATIVE ABSORBENT COTTON.

The cotton is cleaned as thoroughly as possible after the native fashion and boiled for half an hour in a five per cent. solution of native soda (鹼), washed thoroughly, the water expressed and the cotton immersed for twenty minutes in a five per cent. solution of *chlorinated lime*; washed again, dipped into water acidulated with native vinegar, one per cent., and washed thoroughly with water. The water is expressed and the cotton again boiled fifteen minutes in a five per cent. solution of native soda, washed well with water, acidulated water and water; the latter is expressed and the cotton dried quickly. When finished and put to soak in water the latter should remain neutral in reaction. After drying it should again be cleaned in the native fashion. The total cost is about five cents Mexican currency.

Hospital Reports.

[We present some extracts from the Health Officer's Report of Shanghai. It is of unusual interest this year, and we only regret that it cannot be presented in full.—EDITORS.]

SHANGHAI, }
December 31st, 1903. }

GENTLEMEN: I have the honour to submit my sixth Annual Report on the Public Health of Shanghai.

Public Health Report, Shanghai.

Although much has been done for the protection of the health of the foreign resident, there remains the great mass of the Chinese population practically untouched as regards the higher requirements of public Health. The health of the foreigner is determined to some extent by that of the Chinese, by whom he is surrounded. Much can probably be done by education, and it is proposed to issue from time to time sanitary knowledge in placard form. The hacks of all tax receipts, for example, may be utilised for the purpose of telling sanitary truths. These methods must, however, be followed in a chastened spirit; for so few of the seeds sown can ever be expected to germinate. The progress of free vaccination offered to the Chinese at the Health Office is an example of the trials of the sanitary reformer. During the early part of the year, by placards and the personal persuasion of the sanitary inspectors, some 500 Chinese babies were vaccinated at the Health Office until one day, a report having spread that their eyes were being taken out, no more babies came. It is difficult to meet a contingency such as this, for no public body can act much in advance of public opinion. People cannot be dragged into cleanliness

nor made virtuous by police regulations.

The native, however, is not the only difficult man to deal with. The advance of civilisation has done little or nothing to decrease the hopeful spirit which, throughout all ages, has prompted man to believe in the curative power of drugs. There are many foreigners who, when an epidemic threatens, through the misplaced enterprise of drugmakers, prefer to pin their faith rather on "anti-cholera mixtures" than on proper preventive measures.

Public health would be benefited were cremation more general. Even from a sentimental aspect, after the preliminary shock produced by the idea of burning, the clean ashes of a cremation can be contemplated with greater satisfaction than the sloughy putridity of the buried body. Taking into consideration all the accessories of an ordinary burial, cremation is much more economical. The cost for a first-class cremation, including urn and niche to place it in, is Tls. 95, against Tls. 150 for first-class burial, not including tombstone and other accessories. In Japan cremation costs under ten yen, and it would be of advantage, for the purpose of putting cremation within the reach of the man of ordinary means, were a second-class cremation possible, using a furnace of Japanese type. Moreover, cremation would effect a solution of the undertaker question to some extent.

The following Public Health Notice was issued during the year, in English and Chinese:—

The following measures are recommended by the Health Officer, Dr. Stanley, for the purpose of preventing those diseases which by means of individual careful living and by public sanitation are preventable, such as typhoid fever, cholera, dysentery, diarrhoea, small-pox, scarlet fever, diphtheria, tuberculosis, plague, malaria, and others.

PUBLIC MEASURES.

Sanitary inspection of houses will be carried out free of charge by the Health Department on application to the Health Officer.

Nuisances dangerous to health should be reported to the Health Officer.

Disinfection of premises after infectious disease will be carried out by the Health Department free of charge on application to the Health Officer.

INDIVIDUAL MEASURES.

Vegetables and fruit grown near the ground, being liable to infection with typhoid fever, cholera, and diarrhoea, should be strictly separated from the rest of the food before cooking. Cooking destroys the infective material. Uncooked vegetables and fruit should not be eaten unless it is known that they are grown clean.

Milk should be thoroughly boiled immediately it is received.

Water for drinking or kitchen purposes should be either boiled or filtered through a Berkefeld or Pasteur filter. All other filters are worse than useless. Water should not be stored in any vessel, but drawn straight from the tap.

Kitchen supervision should be personal and daily and should be directed especially to the soundness of food before cooking, the ice chest, and general cleanliness. Food utensils should be scalded thoroughly and scrupulously clean boiled dish-cloths used.

Mosquitoes and flies carry disease, hence fly-covers should be used over cooked food. As mosquito bites may be infective, the mosquito net should not be neglected. A small quantity of paraffin oil thrown into stagnant water will prevent the development of mosquitoes.

Refuse should not be allowed to accumulate, and nightsoil buckets should be kept securely closed, including those in the Chinese servants' latrines.

Yards and drains should be freely flushed with water. A good and cheap disinfectant is crude Jeyes' fluid, which may be added in the proportion of a teacupful to a gallon of water. This may be sprinkled freely over any surface requiring disinfection, subsequent to the flushing with water, but it is useless to

pour disinfectant directly down drains. Drains can only be disinfected by keeping them in a good state of repair and flushing freely with plain water.

Vaccination should be repeated every five years.

BERI-BERI.—The incidence of Beri-beri among the Municipal prisoners is becoming less and the type milder. During 1903 there were admitted into the Isolation Hospital 46 cases, 6 of which were fatal, as against 52 and 10, 281 and 47, and 117 and 23, during the three previous years respectively. The gaol has been practically free from the disease throughout the year, at which institution a special diet is given, in which crushed barley and beans replace part of the rice ration. It will be advisable when the new gaol has passed through the next season of maximum incidence of beri-beri to return to a normal diet.

DYSENTERY.—There were 3 deaths from dysentery and one from abscess of the liver among foreign residents. Though diarrhoea of dysenteric type is very common in Shanghai it has a trifling mortality when compared with the dysentery of Japan and the tropics. The cause of the chronic diarrhoeas common in Shanghai is under investigation in the Laboratory.

ACUTE LOBAR PNEUMONIA.—This disease, which was very rare prior to 1898, has in subsequent years caused 2, 8, 0, 8, 2 and 2 deaths among resident foreigners.

RABIES.—Notwithstanding the muzzling order and the licensing of dogs the number of cases of rabies was greater than ever. In 14 of these the diagnosis was established by examination in the Laboratory. Nine persons were bitten by rabid dogs within the Settlement during the year. The virus of rabies in the Shanghai dogs is of an exceptionally intense character; the period of incubation being much shorter than the rabies met with in dogs in

Europe. 47 persons underwent the Pasteur treatment in the Municipal Laboratory during the year; most of the cases coming from outside Shanghai. An account of the work of the Pasteur Institute will be found under that heading.

BACTERIOLOGICAL DIAGNOSIS.—The bacteriological diagnostic service is being more and more utilised not only by local medical practitioners but also by those in the outports. 530 specimens were examined. Of 280 specimens of blood from suspected cases of typhoid fever, 124 gave the Widal reaction. Of 75 specimens from suspected cases of diphtheria, 33 yielded the bacillus. Of 14 specimens of blood, 8 showed the malarial parasite. Of 18 cases suspected of plague, 8 yielded the bacillus.

ANTITOXINS.—Two horses are kept for the production of diphtheria antitoxin, and a good degree of immunity has been established, using Park's diphtheria bacillus for the production of the toxin. 540,000 units have been sent out from the Laboratory to meet the needs of Shanghai and the outports.

Experiments were made by Dr. Moore regarding the production of cholera antitoxin from the horse, but the number of cases of cholera did not suffice for a complete trial of its efficacy.

ANTI-RABIC TREATMENT OF PASTEUR.—Since the opening of the Shanghai Pasteur Institute in 1899 135 persons have received the treatment. During the past year 47 persons were treated. In 10 of these the dog was proved rabid by inoculation; in 18 rabies was certified by competent examination by medical men or veterinarians; in 10 rabies was suspected from history or appearances; in 6 no data could be obtained, and in 3 the animals were probably not rabid.

Among those treated one death occurred—a baby of two years of

age from Tientsin, who died of hydrophobia before the completion of the treatment.

The incubation period of rabies in rabbits inoculated with the brain of dogs sent to the Laboratory for examination varied from 10 days to 16 days; the average being 12 days. That the virus of rabies met with locally is of an exceptionally intense character may be concluded by comparing the above incubation period with that met with in Europe, which varies from 14 to 21 days.

WATER SUPPLY.—The periodic analyses of water supplied by the Shanghai Waterworks' Co. show that filtration is very carefully done. The addition to muddy and impure water of alum in the strength of 6 grains to the gallon is a process which has been long in use in the East for clearing and purifying water, and if 5 grains of lime are added after the alum the clarifying effect is still better. On the addition of alum a flocculent precipitate of alumina forms, which absorbs the colouring matter in the water, entangles the solid matter in suspension, and gradually sinks to the bottom, leaving a clarified water above. Alum is not only an excellent clarifier of water, but destroys water bacteria. Half-a-grain of alum to a gallon has been shown to reduce 8,100 micro-organisms in 1 c.c. of water to 80; while 2 grains has rendered the clear water, after standing for twelve hours, sterile. Though alum appears to have this destructive action on water bacteria, it does not destroy in these or even greater strengths the typhoid or cholera bacillus, so that the method cannot be recommended.

MILK SUPPLY.—Five new dairy licenses have been issued and one withdrawn. The total number of cattle in the dairies is 33 less than last year, which is accounted for by cattle-plague. The loss of dairy cattle by death was 181, mostly by

cattle-plague during the latter half of the year.

As local butter is both poor in quality and expensive, and cannot be sterilised, the public are urged to use imported butter, which, when washed with filtered water, is very like fresh butter and a much safer article of food than the local product.

London Mission Men's Hospital, Hankow.

In both *in-patient* and *out-patient* departments the numbers are more than last year. No fewer than 672 patients have been admitted to the wards; the average length of stay for each being $25\frac{1}{2}$ days, and the average daily number in the wards 47 for the whole year.

We have this year had more *accident cases* than previously, due in the main to the carelessness of the Chinese in wheeling the iron trolleys that are used to carry earth for the filling up of low ground on the foreign concessions. Usually it is the labourer himself who suffers, but occasionally the victim is some old man from the country who walks across the line, hears a shout, and not knowing what to do, in his flurry is knocked down by the earth waggon, and has his leg run over in less time than it takes to tell. Then the best that human skill can do is to give him a wooden leg on which to walk for the remainder of his days.

As in previous years there have come a good many *opium-smokers* wanting to break off the habit. Fifty-five such came; five are still with us, and of the remainder forty-three succeeded while seven didn't stay long enough to complete the cure. The majority of the cases were treated by the method of gradually reducing their allowance of morphia, but some underwent the sudden break-off treatment

which often gives good results, if patients can stand it.

The *table of operations* is much larger than in previous years; there being an average of more than one *chloroform* case per day. The large majority of minor operations, especially on in-patients, are unrecorded, but would exceed those performed under a general anæsthetic. A word remains to be said about the *suicide cases* that have been treated. There were 22 men and 15 women, 37 in all: in 35 cases opium in some form or other being the drug employed. The youngest was a girl of 15, who had swallowed *arsenic*. In the majority of cases some quarrel at home was the cause. Of the 37 cases, 31 were saved and 6 died.

THE MARGARET HOSPITAL.

The average attendance in the wards for the 12 months was '*nine*,' being as low as '*four*' in January and as high as '*fourteen*' during two or three of the busier months of the year. There were 10 deaths in the Hospital in 1903, '*four*' of which followed operation, while '*six*' were from other causes.

Two cases of very large ovarian cyst were operated on; one made a splendid recovery, but the other, in which the tumour probably weighed more than the patient, and was very extensively adherent to both viscera and parietes, succumbed from shock shortly after the operation was over.

Of the Dispensary work Mrs. Gillison says: 'At the Margaret Hospital I have been struck with the number of children, as well as with the number of adult patients who are advised to come in to hospital for treatment and yet refuse to do so. The reason most often given is that the patient cannot possibly be spared from her home, while in the case of a child it is urged that the mother cannot come

with the child, and that the child would cry if left without its mother! In such cases we exhort the mother to be sensible and to consider the child's real good, but often to no purpose. When will Chinese mothers learn what true kindness to their children really demands?'

One crying need we have is for Isolation and maternity wards. We have taken in several maternity cases during the year, and the number grows, but we need a maternity hospital for these needy cases.

One sad side of our work has been the insight into the cruel hardships of little girl-slaves. Two brought to the Hospital were actually beaten to death. One was brought in a basket, doubled up; her head hanging out at one side and her feet dangling over the other. Hers was a terrible tale of cruelty. She was laid on the floor when taken out of the basket, but expired before our eyes ere we could do anything to help her. She had been beaten to death by her mistress with an iron rod. The master called on Dr. Gillison, and in bland tones, told how she had accidentally fallen and hurt her face. 'Was she not alive when brought to the Hospital?' 'Yes.' 'Then I would be much obliged if you would favour me by burying her.' He got told in reply that his brutal conduct and that of his wife merited severe punishment, and he had better take the body away and bury it himself since he was the murderer, or strong measures would be taken. The man in silks hastened out. He got what he didn't expect, but the Chinese law makes no inquiry in such cases. God and the angels see and the record is on high. I have heard of a case where a slave-girl belonging to a wealthy Chinese merchant in the South, but in a British colony, was similarly beaten to death. The wretch was fined

several thousand dollars, got 15 years' imprisonment and his wife 20 years. God speed the day when the helpless slave-girls of China shall be free.

London Mission Hospital, Wuchang.

Another busy year has gone!

Looking back from its last days to review events which have passed we cannot but feel great thankfulness for all the peace and prosperity which have been granted us. No sickness has stopped our work, no epidemic has raged in our midst, no let or hindrance has come from officials or people around. The hospital doors have been open every day of the year, and we are glad to record that, compared with any previous year, more than seventy more in-patients have come under treatment in the wards. At the same time we have not been without disappointment and trial. Early in the year our hospital evangelist had to be dismissed owing to fraudulent use of hospital funds. Later on our promising second assistant, who had grown up and been trained in our midst, had to be sent away, owing to constant neglect of duty and disobedience. His behaviour was largely the outcome of pride—the curse of China. Offers of much higher wages for teaching English had frequently come to him, and doubtless unsettled him. When he left us he was getting \$8 a month now he is receiving \$60 a month for teaching imperfect English at a school in Hunan. One cannot wonder at the desire for self-advancement. The new conditions and demands create new circumstances which have to be faced. We train up to a position and impart knowledge. Shall we not in the near future, if we wish to retain assistants thus trained, have to pay according to the

market value of their services rather than according to a "Missionary Society Scale?" Some here and there may be willing to accept a nominal wage for the gospel's sake, but can we expect the majority to do so? Is it so in the home lands?

In our last we noted various and beneficial changes which were working in our midst. This year's end sees still more. Every yamèn is now in mutual touch through the telephone. The rage for building schools, military and literary, still continues.

The numerous buildings which formerly comprised the rice granary are now in greater part laid down as a school. Near by us stands a high foreign building with an upper storey. This is said to be a medical school which will be professed by Japanese. It is even reported that Japanese ladies are to teach in girls schools and train women teachers for future generations. The anti-foot-binding cause is slowly extending; but mothers raise the objection that it makes their daughters, whose feet have been kept natural, as hard to manage as the boys.

Tungkun Hospital, The plan of the new building being ready, we showed it to and discussed it with the head-masons and carpenters. About ten carpenters had given their estimates, which varied between \$250 and \$1,090. Two were chosen, who did the work to our satisfaction for \$370. We made use of the well known Tungkun red bricks, and from local sources we obtained timber and lime, while our sand supply was got out of the river which surrounds our island. Several matsheds had to be erected—some for the workers and a large one covering the whole building. Another one was made ready to be

used during the daytime by Mr. Baumann, who superintended work and workers. He had under him a few Chinese, who afterwards are to help in the Hospital. One of them, a former patient, now a Christian, has shown himself trustworthy and reliable in every way.

The building operations occupied a whole year, and not without difficulties. Twice a storm pulled down the large matshed. Then the rainy season, which began early and lasted eight months, interfered greatly with the work. During a storm Mr. Baumann, who at the time was near the roof, was lightly struck by lightning. The danger indeed was great, for in a neighbouring field two men were killed by the same discharge of electricity. In July, the water being very high (11½ feet higher than the lowest level in the same year), our dyke, made of earth and stones, and rendered steadier by three breakwaters, protected us very efficiently. A landing stage, with staircase and a crane, rendered us great service in raising up the goods which our own boat, also made in Tungkun, had conveyed.

The one-storied building we are now to describe, has a direction N. W. to S. E. All round is a raised platform of earth, three feet high, which, with the underground fundament, gives us a basement of about five feet high. This basement will be used for a store-room for the many implements bought for the industrial department. The cement floor rests on one layer of bricks, arranged like the arches of a bridge, spanning between the fundament walls which separate the rooms above the floor. Under the large ward and verandahs pillars have been erected, from which start the arches. Our object was to dispense with timber in the basement, as it gives food for white ants, is an annoyance in case of inundation and

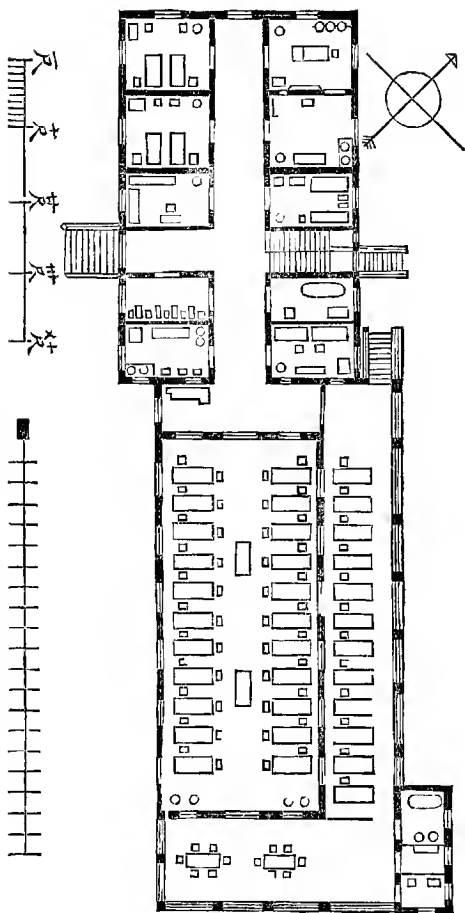
a danger in case of fire. The house contains a large ward, a day-room, a so-called "liegerhalle," and ten smaller rooms—see drawing.

The ward has a height of 13.8 feet all round and in middle of 22 feet. This gives, with the roof space, for a length of 52 feet and a width of 22 feet, 914 cubic feet and 52 square feet for the floor space of each of the 22 beds (the foot here meant is the Chinese measure of 35 cm.). Twelve larger windows, eight feet high, and four smaller, give us a third of the area of the walls. The roof is supported by five arching bows, prevented from diverging by iron bars laid across. A ventilation roof, whose sides are closed by shutters, runs along the whole ridge of the roof. The day-room at the end of the ward will also be used as dining room. The "liegerhalle," like the day-room, surrounded by mobile shutters, is ten feet wide and can accommodate twelve patients. Its direction towards the north makes it a cool place during the summer and during the winter a protecting shelter against the north wind. At the corner formed by the day-room and the "halle" are seen a bath-room and a scullery. Under the roof of those rooms is an iron reservoir to contain our supply of rain-water.

Let us now go to the second portion of the building, separated from the first by a lobby seven feet wide. The central corridor, looking towards the river, gives entrance, to our left, into a dressing, and to our right into the ward-master's room. The latter can see all that is going on in the liegerhalle, and through a side window can at a glance inspect the whole ward. There are also bath, consultation, drug, instrument, and operation rooms; while there are three rooms, each provided with two beds, to be let to patients. A staircase leads into a

roomy attic. No corners or angles are to be seen; everything has been rounded. Each door and window has an inlet for fresh air, in the form of an independent frame, which can be raised or lowered. A large clock, with two faces, is placed in the centre of the building and can be seen by the patients and by the hospital staff. All floors are cemented, except that of the ward, which is laid with glazed tiles from Hongkong. For warming purposes chimneys are built in the walls. The iron tables and bed frames were made here. The patients are to sleep on short planks laid across the frame and are to get a mat and an earthenware head-cushion. Friends in Germany have kindly supplied us with blankets and clothing, so that we are now able to introduce the hospital clothing. Many will be the duties of our assistant, Mr. Baumann, on whose ability we fully rely. Two wells provide us with water. Forty metres distant is another building containing the hospital kitchen, laundry, and rooms for cook and servants. The ground covered by the main building has an area of 616 square metres, that covered by the smaller one an area of 147 square metres. The sum expended, \$9,175, gives for each bed an outlay of £20. In the middle of October Mr. Baumann and I were able to leave the old place and take our abode in the new one. Living now on the spot, and being favoured with good weather, the erecting of a second house for the undersigned got on rapidly. It contains also rooms for European friends and will be finished in April. We thank God for having protected us and our workers from all misfortune, enabling us to bring this house to completion, and ask Him to bless those who are to come within its walls. To the friends who have helped us, we also express our hearty thanks.

PLAN OF TUNG-KUN MEDICAL, MISSIONARY HOSPITAL.



ANTISEPTIC TREATMENT OF BURNS.—The burns and scalds, so frequent in a town in which fire-works are made, were treated, if they came early enough, with *soda-sublimata paste*. The burned surface is washed with 1-2000 sublimate solution; then the paste, spread on antiseptic gauze, is applied over the burned surface; wool and bandage complete the dressing. The paste is made by slowly pouring one part of 2000 lotion in two of well pulverized *sodii bicarbonas*. In many cases no further dressing is needed; gauze and paste dry up, which, forming coating remains in situ until the new epithelium has formed, when it gets detached. This method has been specially useful in cases of burns of the second degree, even when bullæ had formed. The tropical phagedenic and other unclean sores were treated with pure *carbolic acid*. After thorough disinfection, sometimes under narcosis, not only of the part but if possible of the whole limb with soap, brush, spoon, *turpentine*, and strong solution, following the advices given by Cheyne and Burghard in their last manual, we scrape with Volkmann's spoon all the necrotic or softening tissue, and having got a clean surface we apply the *acid* on wool. In the after treatment, if the necrotic process is extending, we repeat the application. We don't make use of the *liquor hydrargy pernitratidis*, which is painful. In order to spare wool we made an abundant use of sawdust bags prepared with gauze bought here. Gauze and sawdust are impregnated with 1-500 sublimate solution and kept ready for use in well closed boxes. Those bags not only absorb well the discharges but offer an efficient support to the limb.

Eighteen stone patients were operated by the median method. Although the dense, elastic, muscular ring which surrounds the

neck of the bladder offers a resistance to the extraction of the stone, we prefer this dilatation method, which is easier for the surgeon and not dangerous for the life of the patient, even of the aged ones. In some cases the overdilatation of the ring caused incontinence.

When incising over the pubes, we raise the pelvis, putting the patient in Trendelenburg's position. We make use of a hollow sound with a grooved end, similar to the one used by Sir H. Thomson in operating in the female bladder. This sound enables us to feel the stone, to fill the bladder with sterilized water, and to lead one aright when coming down to the bladder, helping to push aside the structures to be avoided in front of it and to make a clean cut into it. The sound is introduced before the filling of Peterson's bag.

Hiau-kan Leper Asylum, 1903.

The leper work during the past year has had as usual its full share of disappointments and successes. We are happy to say no little progress has been made, and many of the difficulties connected with the work last year are now things of the past.

In our last Report we intimated that we were hoping to increase the size of our buildings and to double the number of our inmates. In a great measure this has been accomplished.

A stranger, entering the city of Hiau-kan by the east or north gate, now sees midway between these gates a large block of buildings which, although very similar in style to the ordinary buildings in this part of China, is much more solidly built. They stand in a good open position, where they catch every breeze that blows. The main gateway which faces due south, opens into what may be well

described as a self-contained compound, completely surrounded by a high wall. Here indeed is all that is necessary for comfort, and much more, as compared with the houses from which the inmates have come. No doubt as to where the next meal shall come from, no anxiety as to where shelter shall be found at night! Here are large well-ventilated wards, furnished with plain iron bedsteads and clean sweet bedding, as well as a good kitchen, dining-room, bathroom, and workroom accommodation. Here indeed is a real home for the leper, with comfort, peace and comparative relief from his sufferings.

Experience has taught us the necessity for altering the regulations under which we entered upon the work. We used then to insist on the men doing most of the manual work of the Asylum. Every man had also a small piece of ground allotted to him, on which to grow vegetables for common use, and we were not content until everyone was fairly well occupied. We have had, however, to modify much of this state of things. While we believe as strongly as ever in the benefit of keeping them employed, and thus helping them to forget in some measure their terrible malady, we have found it absolutely necessary to provide them with lighter work. The experience of a year or two convinced us that there is something in the climate of Central China which makes it impossible for the leper to engage long in manual labour.

A special feature of tubercular leprosy is the curious claw-like hand which, as certainly as possible, follows the secondary manifestations of the disease. The majority of our inmates show the little and ring fingers of both hands drawn into the palms. At a later stage the disease attacks the terminal phalanges of the digits, causing gan-

greue and sloughing of the tissues. We have frequently to remove these diseased members. What is left is simply a contracted stumpy palm.

When the work imposed upon the inmates does not involve too great exertion, the men respond readily enough to our requirements. Indeed at times there are rare exhibitions of work prosecuted under the greatest difficulties at our Home. Here, for instance, is a man who works at net-making with a large mesh, by throwing the shuttle with his mouth, while holding on to the edges of the net with the remnants of an amputated thumb and a contracted palm. Yonder is a man who is quite unable to use even the stumps of his fingers, but he manages somehow to hold the Chinese pen by contracting the skin of his palm, and thus writes letters for his fellow-inmates and marks the clothes belonging to the Home. Here is another almost devoid of fingers who, to assist him in his occupation, has had a curiously shaped knife made. Placing this between his teeth he slowly works away and supplies the net makers with their bamboo shuttles. All who have fairly good hands we have taught to do tailoring. With such a large family as ours there is always something for them to do, and we hope that their work will in future represent a considerable saving to the Home.

Kieh-yang Hospital, A continuous working
A. B. M. U. year has made several things possible which were not possible before, aside from merely keeping the wards and dispensary open without interruption. I refer especially to the training of medical students. We train young men and women to medical service in China, but not as medical students are trained in the United

States. Here they are our hospital assistants as well as our pupils, and much do we depend upon their services for the routine work of the dispensary.

During the past year our district has been mercifully spared any serious epidemics, droughts or famines, consequently the accompanying report is one of an ordinary year's work; which report may be best given under three heads: the *Medical Work Proper*, the *Medical Class*, and the *Evangelistic Work*.

The *Medical Work Proper* has been much the least satisfactory of the three; in fact it cannot be said to be proper at all. It has been altogether *im-proper* if viewed from any point of view, but that of the ignorant but grateful position of the Chinese, for and among whom the work has been done. From the point of view of an enlightened physician of the twentieth century it has been unhygienic, unsanitary and dirty, in spite of strenuous and united efforts to make it otherwise. And from the point of view of all those who believe in medical work as a means of reaching and teaching as many heathen as possible, our hospital has, this year, reached less than half the number it might have reached had we had room to house all who would have come.

At the beginning of the year the medical class numbered seven, five young men and two young women. Of the five young men students, all are Christians, and three are "second generation Christians."

The methods of teaching the gospel have been much the same as those used heretofore, but more regularly and effectively carried out. The half-hour's service which precedes the dispensary hour has been conducted daily by A Sok, who continues in the position of trust and responsibility which he has occupied since the first opening of the hospital. The evening

service, for the in-patients, has been conducted by the students in turn. The selling of tracts among the patients has also been a profitable feature of the work.

C. I. M. Hospital, The hospital is five minutes' walk from the **Changsha, Hunan.** compound, and occupies the premises formerly used for the general work. There is capacity for six in-patients or twelve on a pinch. The dispensary is small, but fairly well equipped for out-patient work. At present, owing to the necessity for language study, the dispensary is open only three afternoons a week, and much good is done. From the very beginning of the work here God has signally blessed this agency. We look forward to the time when we will be supplied with everything essential to a thoroughly scientific and spiritual work in the medical line. The hospital evangelist lives there and speaks much to the people of the love of God. Our medical students occupy rooms and pursue their studies there as well, coming over to the compound for their lectures. So far as the medical situation is concerned we are just in our formative period. We have made an excellent beginning, but the regions beyond are: suitable assistants, the purchase of land and erection of buildings, and the equipping of the same. Will the friends join with us that God may soon see fit to entrust us with a thorough working plant which will redound to His glory and relieve much bodily suffering?—From *Occasional Notes*.

London Mission Medical School, This school was started in March, 1902, and is therefore now at the close of its second year. One of the difficulties encountered at the start was the securing of students.

While fees are paid for the first four years the student undertakes to serve in a mission hospital for two years at a reduced salary, after which period he is free to make his own terms. Of course the hospital he is expected to serve in is that of the doctor or Mission who supports him.

In 1902 we began the year with eleven students and finished with nine, while during the year under review we began with fourteen and ended with thirteen.

The full course is six years, four of which must be taken at the school while the remaining two may be taken either in our own hospital or in that of the doctor or

mission supporting the student. During the first year the subjects taught were anatomy and chemistry. This year we taught anatomy, physiology and histology, juniors and seniors taking the same class.

The teaching in the school is done in Chinese, and the examinations of course are in the same language. We have no belief in teaching in the English language. It is educating the students away from the people, and we want to work into the life of the nation and not to create an exotic plant destined to wither up when brought in contact with the tones and aspirates of ordinary Chinese life.

BIRTH.

At Hankow, May 11th, the wife Dr. THOMAS GILLISON, L. M. S., of a son.

ARRIVALS.

May 13th, Dr. J. M. OXNER and wife, S. B. C., for Shantung; Dr. H. W. BOYD, A. P. M., Canton (returning).
May 18th, Dr. J. N. HOOPER and family (Brethren).

DEPARTURES.

June 8th, R. B. EWAN, M.D., and family, C. M. M., West China; W. E. MACKLIN, M.D., and family, F. C. M. S., Nanking, for U. S. A.
April 28th, Miss M. E. MCNEILL, M.D., I. P. M., Manchuria, for England.



HO SPITAI OF THE MEDICAL MISSIONARY SOCIETY, CANTON.

The
China Medical Missionary Journal.

VOL. XVIII.

OCTOBER, 1904.

No. 4.

Original Communications.

[All papers must be in the hands of the Editors two months before date of publication to insure their appearance in the following number. The editors cannot undertake to return manuscripts which are sent to them. A complimentary edition of a dozen reprints of his article will be furnished each contributor. Any number of reprints may be had at reasonable rates if a *written* order for the same accompany the paper.]

HUNTING SOME LITTLE FOXES.

BY ROBERT C. BEEBE, M.D.

It is the little foxes that spoil the vines, and as I have run across a few of these little mischief makers in the medical vineyard it may not be out of place to bunt them out. They are so insignificant, some will think, as scarcely to be worth the powder, but it is these little things that receive too slight attention and their presence or absence often makes a great deal of difference to some one.

The doctor, of all men, must pay attention to small things. It is this that makes him a good diagnostician, and in his peculiar relations to the rest of the world a thoughtful consideration of others goes very far towards securing success.

One day a brother practitioner and his wife, from another part of China, and whom I had never met before, came into our dispensary with one of our neighboring missionaries. With rather seeming haste, lest I should suppose I was being personally honored by the call, the medical brother said he had come in to look over the hospital. I promptly and very cheerfully conducted them through the wards and all the departments of the hospital. I began to offer all the information that I thought might be interesting in regard to the work, but I soon found that it was received in silence. Nothing seemed to excite any curiosity, admiration, or criticism. The pleasurable anticipations that sprang up in my breast when I met this brother of another nationality and from another mission field, fast chilled in the unresponsive presence of one who looked but never betrayed his thoughts or feelings.

After going through the hospital I invited them to my home adjoining, but was met with the reply, "O no! We are to be in Nanking but a short time and just called to see your work." Following the natural instincts of my countrymen I extended my hand to say good bye. It was taken and given one pump-handle jerk down very solemnly and they departed. I went back to my work, feeling as if I had been one of my hospital attendants for a time, opening doors and leading the way for some one of another race and tongue, feeling sorry that the hospital could not be polite and return the call, feeling as if an episode had interrupted the even tenor of my way but that I was not in it.

This is an extreme case, but it emphasizes a point we may possibly forget. If you wish to see a man's work be polite enough to make him know that you have called to see him first. He is a superficial observer of affairs who does not know that the man in charge of a work on the mission field is one of the largest factors in it.

Then whatever our race, training or society, our relations as medical missionaries in the same country naturally suggests to the well bred man a deferential consideration of each other ; some respect for the man, his aim, his society or church.

A brother practitioner of an American mission was at Kuling one summer, and living in an adjoining house was a clerical member of his own mission, whose little child was taken sick. The father instead of calling in the physician of his own mission and without explanation to his medical brother called a physician of an English mission, who came and took charge of the case as long as he was at Kuling and when he left, turned the case over to a colleague of his own mission. The physician of the mission to which the patient belonged was ignored as far as the case was concerned. The feelings awakened in his breast naturally were not the most complaisant. Some may say that a man has a right to call whom he pleases to attend his family. Under ordinary circumstances that is true, and it is not my purpose now to discuss the ethical side of the relations of those in the same mission, but the missionary physician, who is not out here for business, is bound by certain relations that should naturally suggest themselves. He should have a thoughtful consideration for his brother medical missionary and has no right to do anything that reflects upon him, puts him in an embarrassing position or causes him trouble in his own mission.

I do not think that the offending doctor intended to do any harm, but he did do so, and a little thoughtfulness on his part would have prevented it. He must have known the situation and should have excused himself from taking the case without the request of the mission

physician living next door. Every phase of a missionary physician's life should make for peace and goodwill.

There is another little fox born of thoughtlessness at our summer resorts. Our foreign patients often come under the care of doctors of another mission who are kind enough to attend to them in the absence of any doctor of our own. I have known a case like the following: A lady comes back from Kuling, calls in the mission doctor and with considerable anxiety tells him that when at Kuling Dr. So and So told her that as soon as she got back to her station she ought to have such and such a thorough course of treatment. It happened in this case the trouble terminated naturally at the expiration of ten lunar months but it was embarrassing for a while. The doctor who had succeeded in making an impression on the mind of his patient of his thoroughness and skill, forgot that instead of telling the patient what her regular attending physician ought to do, should have said: "Consult your physician when you return home and he can best determine what ought to be done in your case." Never intimate to a patient what you think another physician ought to do. Be careful not to imply that he is in the least lacking in ability to diagnose and treat a case as well as yourself. A habit of thoughtful consideration for others which is the soul of good manners, would prevent anything like the foregoing incidents.

I wish to speak of just one more little fox, and it is an outsider. Perhaps he might be considered as a crafty old fellow. Life insurance companies are pushing their business into interior cities where missions are established and where perhaps a hospital with years of work has given the medical missionary a good name and wide influence. The medical missionary is asked to act as examiner for the company. His name and influence and acquaintance with the language and people are all grist for the agent's mill. When a straightforward business is done no one can object. The missionary welcomes all clean business enterprise. We rejoice over every new one started. But it has come to my knowledge that sometimes an agent comes to a city and with a feast made potent by wine, opium, and Chinese dancing girls, gives up the night to entertaining and persuading those whom he seeks to insure. The next day they are taken to "Our Doctor" to be examined or the doctor is induced to go to the residence of the victim. The medical missionary's name is traded on. In the minds of some he is yoked with a fellow and a proceeding that in respectable Chinese nostrils is rank and smells to heaven. The medical missionary has been a party to a sort of bunco game as far as the procedure is concerned.

Let me say that I presume this is not a common method by any means. I presume the business is commonly conducted in Chinese cities in a respectable and commendatory way, but it behooves the medical missionary to be on his guard and carefully consider how he allows his name and reputation to be used in a business enterprise that can be worked so as to injure the work to which he has given his life.

THE ALDEN SPEARE MEMORIAL HOSPITAL, YEN-PING, CHINA.

By J. E. SKINNER, M.D.

Of the five prefectures into which the northern half of Fuhkien province is divided, by mutual consent two have been given to the English Church and Zenana Missionary Societies for their exclusive occupancy; the American Board Mission has sole charge of the work in a third, the American Methodist Mission in the fourth, while the fifth, the Foochow prefecture, is occupied by all three denominations.

In the Foochow prefecture, beside the half dozen or more hospitals in and around Foochow city, there are at least six other hospitals, or one for almost every county. Most of these county hospitals are small, and for women and children only.

Three of the other prefectures have had one centre each for general medical work under direct foreign supervision for a number of years.

In the fourth, the Yen-ping prefecture, the one given to the American M. E. Mission, there has never been any foreign medical work, though a native doctor in mission employ carried on a small work in a native house at the capital for several years. This Yen-ping prefecture is one of the largest in the province, equivalent to an area perhaps one hundred miles square, and has been until recently one of the most hostile parts of the whole province.

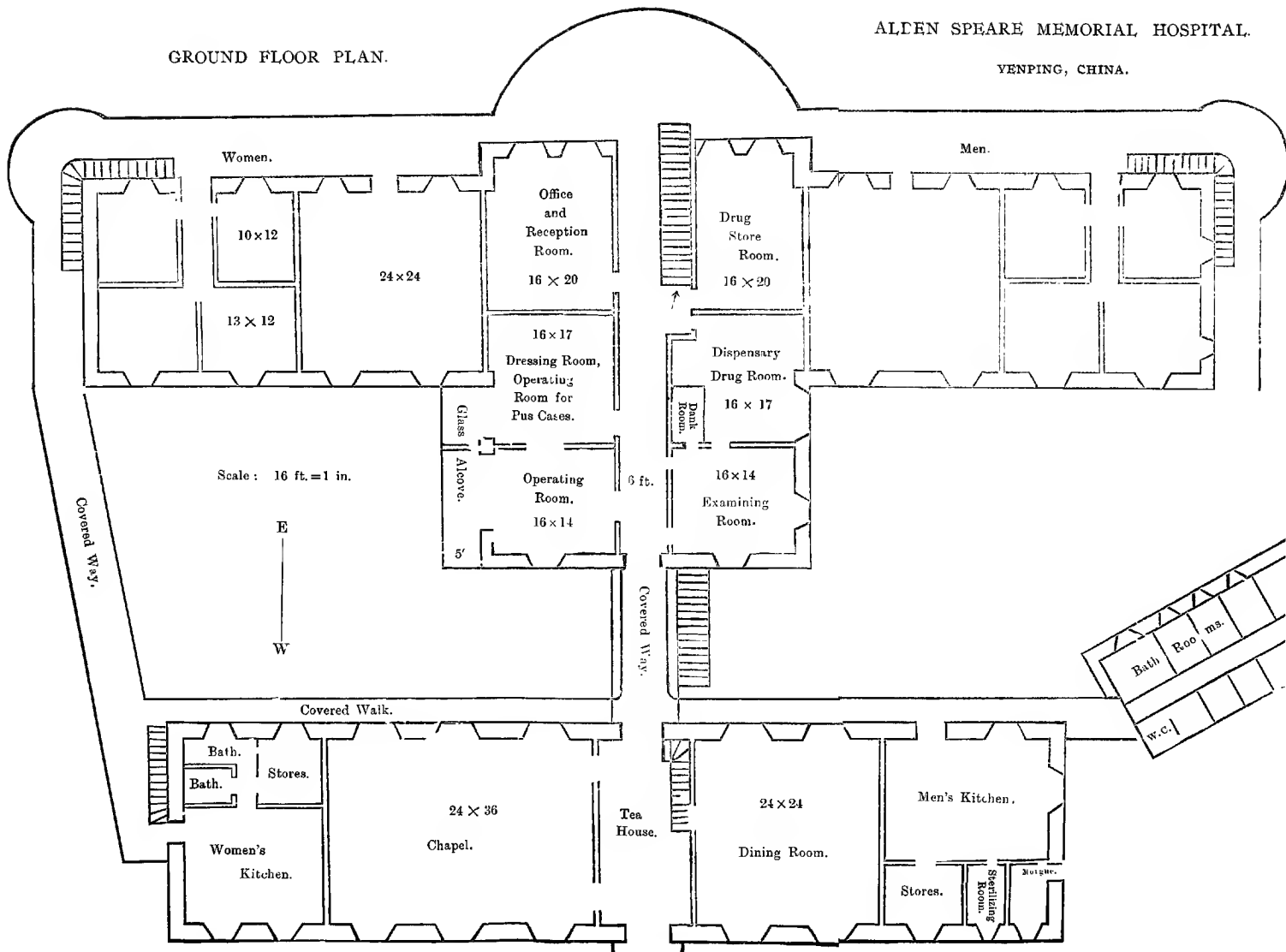
Yen-ping city, the capital, is finely situated at the junction of the two large tributaries which there unite to form the main stream of the Min river.

While not a large city in itself, the population probably not exceeding thirty thousand, it is considered a strategic point. There are five counties under its jurisdiction, and being easily reached by boat from any part of the district, it is already a very important city. Besides this it seems certain that before many years have passed a line of railway will be built through Yen-ping connecting Foochow with the Hankow-Cantou road.

ALLEN SPEARE MEMORIAL HOSPITAL.

YENPING, CHINA.

GROUND FLOOR PLAN.



We have telegraphic communication with Foochow, one hundred and twenty miles away, but the mails take three days coming up, as bad rapids prevent steam launches running more than half way up the river.

We have recently been transferred to this place from the Wiley Memorial Hospital, Ku-cheng, and already land has been purchased and the new hospital buildings commenced. The site is spacious and commanding. Located on a hill in the centre of the city the two great arteries of commerce approach each other from either side, form their union directly in front, and continuing their course seaward between mountain walls, give the spectator an unobstructed view down the main river for a distance of at least five or six miles.

The plans for the Alden Speare Memorial Hospital accompany this article and are largely self-explanating. The main building is of gray brick, two stories high, and with an open three-storied eight-foot veranda on three sides, giving a total length of one hundred and sixty-five feet, with the total width of the wings thirty-six feet, and of the central building seventy-three feet, including the rotunda.

As much of the north wing as is needed, is to be shut off by a movable partition for the women's department. The administration rooms are located on the first floor in the central building. The rest of this floor and all the second floor (which is similar to the first) are given up to wards and private rooms. If more small rooms seem desirable later the larger wards are so planned that they may easily be divided at any time.

Parallel with the main hospital and connected with it by a covered walk twenty feet long is a pounded earth wall building with brick corners. The second story is devoted entirely to rooms for assistants, students, and servants.

The chapel is a story and a half high, leaving a loft which may be used as a store-room. This second building is one hundred and seventeen by twenty-eight feet in its outside dimensions.

The cost of the hospital buildings, when complete, will be about ten thousand dollars Mexican. For land and wall about eleven hundred more have been paid. If funds in hand will permit, the intention is to carry the central part of the main hospital half a story higher, providing isolation wards and rooms for opium cases.

Through the generosity of two gentlemen in America we are able to plan for a system of water pipes which we hope will give us an abundant supply of running water, a convenience hitherto unknown in this part of China.

The water is to be taken from one of the city aqueducts, through a special arrangement with the Taotai, whereby we agree, as compensation for the water allowed us, to pipe the public supply across a ravine where at present bamboo pipes are used. These pipes are always leaking, so that much more water is being wasted than we shall need to use in all our mission compounds. This includes the hospital, two residences, boys' school, and the women's and girls' schools. Of these various buildings only one residence has been completed as yet; but the others are all under way, except the women's and girls' schools.

In earlier years the people of this district were so hostile to foreigners that a number of itinerating missionaries were mobbed and came near losing their lives. Now all this is changed, and we have been able to buy some of the most desirable property in the city for mission purposes. The medical work may be very small at first; but inasmuch as we have already a flourishing evangelistic work in fifteen or twenty parts of the district we hope to be favourably advertised through our Christians, and in time be able to fill the hospital. It is intended to accommodate from one hundred to a hundred and thirty beds.

We hope to open work on a small scale this coming autumn, using the chapel building until the main hospital can be finished, which will be at least a year later.

INHERITED SYPHILIS IN HANKOW.*

By S. R. HODGE, M.R.C.S., L.R.C.P.

I have realized since I agreed to write this paper that it was a mistake to allow this subject to one of the gentlemen. A lady would have been better. In my own hospital I see no cases under ten; all these going to the women's hospital. I, therefore, miss most of the cases of inherited syphilis in very young children, only seeing a few selected cases in consultation. I must therefore leave to the lady members, whose experience is large, to correct any wrong impressions I may have formed.

At the outset I would say that, on the whole, I have not seen more of inherited syphilis in hospital practice here than I did at home, and I am not sure that I see as much. I put this down to a combination of two causes: (1). That the conditions of life out here favour the operation of the law of the survival of the fittest, which works unhindered. Most severe cases of epiphysites with subsequent pæymia and brain trouble

* A paper read before the Central China Missionary Association.

which occur early succumb, and we never see them; many, too, fall victims later on to general marasmus and progressive failure of strength. (2). Such then as remain, though subject to symptoms for which they come to me, are fairly strong in face, the selected, and these may show few signs of their early taint—as Hutchinson has pointed out: “Many of these have excellent health in later life, and in most it is impossible to recognise that they have ever suffered from the disease in early life.”

I shall point out later on the danger of confusing some forms of inherited mischief with tubercle, but here will simply remark on the large number of punily developed young men we see. Lads of nineteen or twenty having the development in stature and everything else of children of fourteen, are by no means rare. Some part in the etiology of this is no doubt due to had hygienic surroundings and poor food, but I think it not improbable that, in some good few, it is a manifestation of inherited syphilis. We may group our remarks, as usual, under the two headings of early and late manifestations of inherited syphilis.

I. EARLY.

Passing over the well-known snuffles, copper rash, puny development, and well-known Parrot's node (which I think out here are not often seen) I may perhaps be forgiven a warning about condylomata. I have seen the moist patches due to eczema intertrigo mistaken for these, and a little care needs to be taken. Then, too, in this heathen land, where sodomy and all kinds of unmentionable abominations are practiced, we must be on the lookout in all cases for *acquired syphilis*. Many of the symptoms of the true form are common, but a few children are victims of foul usage rather than inherited taint.

Hydrocephalus is said by some to be the most characteristic cerebral lesion of the newly born, but I doubt it. We really know little or nothing of the pathology of congenital hydrocephalus. Anyway I do not think it is common out here where there is so much syphilis; it is the sort of case I should have seen in consultation at our women's hospital, but I do not remember seeing a case in all the years I have been out. I saw a case of suspicious hydrocephalus in private at Wuchang; but I never got a reliable history nor opportunity of watching the case.

Pemphigus of the new born. I saw one case of same years ago, but I have no notes of it and cannot remember the details. I thought at the time it was syphilitic and was probably right, as ordinary pemphigus rarely, if ever, attacks infants. My memory is that the child was very young, only just born; the bullæ were coming out every day and there were some on the trunk, I think. As a rule the eruption is mostly

confined to the hands and feet, and when severe it is nearly always fatal. It generally appears within the first fortnight. It is said to always begin on the palms and soles; only in severe cases does it spread up arms and legs and on to trunk. The forms of ordinary pemphigus that attack children, do so later; these commence on hands and feet, and are commonly scattered over trunk. One yields to *arsenic*, and the other, if it does not speedily kill the child, to *hydr*.

I have never seen acute epiphysites of infants, nor have I seen a case of cranio tuberculosis. I should be interested to know the experience of others on this point.

II. LATE MANIFESTATIONS.

Of these, I have, naturally, seen much more.

Hutchinson's teeth. Linear scars round mouth are, in my experience, not as common as I expected; but one must remember that according to Mr. Hutchinson, teeth symptoms are absent in half the cases.

Interstitial keratitis is fairly common, and not long ago I showed to the Society a case of synovites of the wrist joint occurring in a young lad who had interstitial inherited keratitis. It is not unusual to have this combination. According to Hutchinson the affection is chronic, the knees are most frequently affected, there is little or no pain, and under treatment the trouble disappears, leaving the joint unimpaired.

It is well to bear in mind that the ordinary impression one gets from books as to interstitial keratitis is by no means correct. They would lead one to suppose that it is confined to about the time of puberty; but as a matter of fact it may appear as early as four years of age and as late as forty or more. I have a well marked case, which got finally well under treatment, in a patient between thirty and forty. Mr. Lenz, of Middlesex Hospital, wrote me he had a typical case with well marked Hutchinson's teeth in a patient aged forty; and Mr. W. T. had one in a patient aged sixty. According to Mr. Hutchinson the explanation of these late cases probably lies "in the development of the tissues and not in an actual recrudescence of the disease."

The diagnosis of late inherited mischief is not always easy, for history of parent out here is unobtainable, and there may be few or no symptoms of very early trouble in the patient. Speaking generally the symptoms are such as in acquired syphilis would be described as tertiary, viz., affections of skin and mucous membrane and bone and gummatous deposits in various places, and *their treatment is the same*. The point is difficult to decide sometimes whether a particular case have inherited or acquired mischief, but in many cases I have thought the patient far too

young to be the subject of inherited mischief, unless indeed he acquired it in one of the ways I have already referred to.

Acute phagedaena of the soft palate may occur at puberty and in young adults, and is liable to be mistaken for lupus. The rapidity of its action is the main distinction, as well as its position and the absence of any tubercles. The disease must be attacked vigorously and promptly with cauteries and *iodoform*, and *iodides* must be pushed. I have seen several cases in young adults, but, unfortunately, few of them agreed to such vigorous measures. Nevertheless, if such are not resorted to, the whole of the soft palate may be gone in a few weeks.

Otitis is another affection which is common out here, and some of it is certainly syphilitic. It not infrequently follows syphilitic pharyngitis and is apt to be chronic. Another form is referred to by Hutchinson as occurring in older children, which comes on quite suddenly without pain and frequently without discharge. Miss Gough tells me she has seen such of two or three months' duration; deafness came on quite suddenly, no discharge, bone conduction absent, other signs of hereditary syphilis present and improved by hydr. Such cases are mostly due to affections of the labyrinth.

Perhaps the commonest affection we see is the osteoplastic affections of young adults and the curvature of the tibia in young children.

To take the latter first. It occurs fairly early in life—between five and fifteen; the curvature is only anterior according to Tubbs, though Hall says there is occasionally an inner curve in the lower third. Its treatment is anti-syphilitic only. It is the most frequent and most characteristic evidence of late inherited syphilis, essentially chronic and hyperplastic, but necrosis may occur and need surgical intervention. One must look for other evidences of syphilis, with nocturnal pains and tenderness. Can only be confounded with rickets. But in the latter there are other symptoms of rickets; the child is younger, generally under three, and the curvature is generally either antero external or antero internal. The ribs, too, never escape in rickets.

The other forms of bone disease occur before or after puberty and are mostly chronic forms of periostitis and osteitis. According to Hutchinson (1) they are usually found in children from five to ten, but I have seen them later myself. (2). The tibia, fibula and ulna are the most usually affected. (3). They lead to great thickening and not infrequently to necrosis of a thick . . . fragment. (4). They are attended by severe aching. (5). Differing from the tertiary periostitis of acquired syphilis, there is a distinct tendency to spontaneous curvature. (6). Overgrowth, both in length and thickness, may occur, associated with bending,

I will close with a reference to those forms of inherited mischief which are liable to lead to error.

1 *Glandular Enlargements.*—These are often confounded with tubercle. The glands of the cervical region may often enlarge and suppurate not infrequently under sterno-mastoid; cellular tissue and skin often involved as well.

2 Enlargement of the spleen is frequent in the hereditary syphilis of childhood, and may form a considerable abdominal tumour and is often associated with enlargement of the liver. The same symptoms are met with as result of chronic malaria. Enlargement of the epitrochlea glands. Very diagnostic. So in adults of twenty. In the absence of the marked evidence of syphilitic taint we must depend upon the blood examination for crescents or intercorpuscular parasites, if fever be present, and on the result of treatment.

I need say little as to treatment. For very young children inunction is the best, being careful to shift the place of inunction continuously so as to avoid irritation. In all gummatous and bone affections, *pot. iod.* must be prescribed, but *iod.* always out here combine with *hydr.* as they are sure never to have been put thoroughly under its influence.

It is important to remember the need of tonic treatment. Young children often become anæmic after specific treatment has been carried for some time, and it is wise to intermit the *hydr.* or *iod.* for a time and prescribe a tonic, resuming the specific later on.



Medical and Surgical Progress.

Surgical.

Under the charge of J. B. FEARN, M.D.

RUBBER TISSUE AND BORIC ACID IN THE TREATMENT OF LEG ULCERS.

W. Scott Schley gives the results of his experiments in treating ulcers of the Out-Door Department of St. Luke's Hospital, New York. Following the suggestion of Abbe, they have, for some time, employed *boric acid* and over this rubber tissue, the whole covered by gauze and a bandage, in the treatment of granulating ulcer, particularly of the varicose type. The method in brief is as follows: The ulcer having been cleansed, upon the granulating surface well-powdered *boric acid* is generously sprinkled; this is covered smoothly with rubber tissue overlapping the ulcer by one or two inches and secured in place by adhesive plaster strapping; absorbent gauze covers the tissue, again overlapping its edges and a snug supporting bandage is applied. A point of much importance is the length of time such dressings should be left undisturbed; they are rarely changed oftener than once in five days, usually once a week and occasionally longer. Schley has been impressed with the rapid rate of epithelial growth under this dressing; the smooth surface of the rubber tissue insures a smooth surface to the granulations. The *boric acid* acts as an antiseptic astringent, diminishing and sweetening the discharge and preventing excessive transudation of granulations, which two factors undoubtedly act as the greatest checks to epithelial growth and covering.

His success has been so marked in this form of treatment that within the past few months Schley has extended this treatment to a number of ulcers, the result of tuberculous inflammation with the characteristic flabby granulations and undermined bluish edges. Here also the results are reported to be gratifying.—*Medical Record*.

SILVER WIRE FILIGREE IN THE TREATMENT OF VENTRAL HERNIA.

H. B. Perry reports having implanted silver filigree in the treatment of two cases of large ventral hernia. One was a stout woman of fifty-two with a large postoperative ventral hernia. She was operated upon and a silver filigree pad four inches by six inches was stitched to muscles and fascia around an opening of two inches wide and four inches long. The skin was closed over this and the patient made a good recovery. The other patient was a stout woman of forty-three with a large ventral hernia. The hernial opening, which was two inches by two and half inches, was covered with the silver filigree as in the other case, and in addition the omentum was stitched by continuous suture to the margins of the hernial openings. This patient also made a good recovery. The first operation was in January and the last in March, 1903. Both women have since enjoyed good health, and there has been no recurrence and no trouble in any way.—*Boston Medical and Surgical Journal*.

FISTULA IN ANO.

J. Coles Brick reviews the literature of the subject and discusses the methods of treatment. The palliative treatment occasionally effects a cure, but usually only prevents the extension of the disease. Local applications of strong *carbolic acid*, *iodine*, or *chromic acid* may be used with good results. The outer opening should be well dilated, the sinus well cleaned, and a small piece of wool saturated in strong *carbolic acid* with ten per cent. of water passed to the bottom of the sinus. A drainage tube, large enough to fill the sinus, is inserted and retained. If the treatment is successful, a shorter tube will be sufficient day by day. *Carbonic acid* gas has been passed through fistulous tracts with satisfactory results. The operative methods most in use at the present time are excision with the attempt to obtain primary union and incision, in which union by granulation is sought for. Great care should be taken in making the diagnosis; a moderate degree of tuberculosis of the lungs is not a contraindication for operation if in the operator's opinion sufficient vitality remains to restore the wounded tissue, but either should not be the anesthetic used; local tuberculous fistulas should be incised with a thermocautery and early general hygienic treatment instituted; simple incision over a grooved director of fistulous tracts, disregarding sphincters, is poor rectal surgery; every effort should be made to preserve the sphincters, and if cut, they should be cut at

right angles to the fibres, disregarding the fistula. The after treatment is very important.—*N. Y. Medical Journal*.

 METHOD OF PRESERVING
CHLOROFORM.

An English surgeon who had a patient die from the effects of *chloroform*, called for an investigation on the part of the authorities and a chemical examination of the *chloroform*. This roused the indignation of the hospital authorities and led to much discussion on the subject. With reference to the method of preserving *chloroform*, Dr. Témoign contributed a paper on the subject. Dr. Témoign said that he had for several years used a very simple method by which *chloroform* may be kept for an indefinite time without decomposition. This method, which was devised by M. Allain, a military apothecary (*pharmacien-major*), consists in the addition of a little flour of *sulphur*—four grams to the kilogram of *chloroform*. The small quantity of *sulphur* which the *chloroform* dissolves, appears to concentrate on itself the decomposing action of the luminous rays, for it is precipitated in the presence of light and is redissolved in the dark. Using this method Dr. Témoign has given *chloroform* 6,000 times without the slightest mishap, and he has presented the Academy with a bottle of *chloroform* prepared in 1896 which he believes to be in excellent condition.—*American Medicine*.

The China Medical Missionary Journal.

VOL. XVIII.

OCTOBER, 1904.

No. 4.

Editorials.

It is with the most profound regret that with this number of the JOURNAL terminates the editorship of my friend and colleague, Dr. W. H. Jefferys, who has been obliged to turn to America on account of his wife's ill health. We who are left behind can only hope and pray that she may be completely restored, so that they can return to the field.

The readers who have followed the pages of the JOURNAL in the last two years know well that the greater part of the improvement in its make up, particularly in the way of illustrations, has been due to his interest and skill.

Dr. Jefferys is a man of large sympathy both with his profession and with the people whom he was called to serve, a skillful surgeon and a loyal, devoted soul. Such a man as the missionary body in China can ill afford to lose. How great his loss is, only the few who were privileged to know him personally can realize.

In expressing hope for his return, we are but voicing the sentiment of all to whom he and his work are dear.

Our retiring secretary, Dr. Beebe, has also been called home to America by the serious illness of his wife. The hearts of his friends and fellow-members of the Association go out to him in this present affliction.

In the April number of the JOURNAL the editor attempted, with the cry for copy ringing in his ears, to give a *résumé* of a book on the Internal Secretions and Principles of Medicine, by Dr. Sajous, of Philadelphia. Without the least intention of being discourteous he inadvertently omitted to give either the title of the book or the name of the author. For this he offers sincere apologies, as well as for the fact that the article was so unworthy of the book referred to.

It must be annoying to an author or investigator to see his work drawn from in print and not receive any credit for the same, particularly to a man of Dr. Sajous' reputation.

The Officers of the Association for the ensuing year were unfortunately omitted from the last issue of the JOURNAL. They are as follows:—

<i>President</i>		D. CRISTIE, Moukden.
<i>Vice-President</i>	-	J. M. SWAN, Canton.
<i>Secretary and Treasurer,</i>		R. T. BOOTH, Hankow.
<i>Editors</i>	-	Drs. JEFFERYS and LINCOLN.
<i>Curator of Museum</i>	-	C. S. F. LINCOLN.

We have recently received from the Mission Press the second report of the Committee on Medical Terminology appointed by the China Medical Missionary Association.

It is a neat little pamphlet of seventy pages, containing lists of terms, arranged alphabetically, in Pathology, Medicine, Surgery, Obstetrics, and Gynecology—the English and Chinese in parallel columns, practically a small medical dictionary. The Committee earnestly desire that the members of the Association should examine this list carefully so as to be ready to criticise it at the coming meeting in February and so get it into shape for final publication.

The editor wishes to remind the members of the approaching meeting in February.

Let every member of the Association take it on his conscience and resolve:—

1st. To remember that this meeting is of your Association and for your benefit.

2nd. To come if it is possible to do so.

3rd. To be on the lookout for something of interest to bring with you as a thankoffering.

4th. That you will prepare something for the benefit of the Association. In helping others you help yourself (and incidentally the JOURNAL).

5th. To come here prepared to make this meeting to most interesting and helpful that the Association has ever had.

6th. To let Dr. Boone know as soon as may be what you will write about.

Correspondence.

CHI-NAN-FU, June 10th, 1904.

DEAR EDITORS: The readers of the JOURNAL may be interested in hearing of our success in attaining self-support in our medical work

in Chi-nan-fu. For two years now we have drawn no money from our home Board for the running expenses of our two hospitals for men and for women (the latter in care of Dr. Mary L. Burnham) including drugs, salaries of assistants, etc., and we hope to continue in the same line hereafter. Our financial year ends April 30th, and for the past year we received \$1,764.35 Mexicans from all sources. Of this sum the largest item is about \$700 from Chinese officials and other natives. Beginning soon after the Chinese New Year, we send a subscription book round every year, beginning with the governor of the province, who starts the list with a gift of Tls. 100, down through the Treasurer, Judge, Salt Commissioner, Taotai, Prefect, and Magistrate, all of whom contribute with apparent willingness, but in descending ratio, after which the book goes to various bureaus in connection with the provincial administration and to friends and patients. After making its rounds the subscription book lies in the dispensary ready for use by any friend or grateful patient who feels like contributing, and we encourage patients in the hospital to give as much as they are able, after they have been cured.

Besides these contributions from Chinese we annually receive several hundred dollars from foreigners, such for instance as the Roman Catholic Mission, for which we do a great deal in the way of doctoring their Christians, and from the railway, etc.

Thirdly we expect daily dispen-

sary patients to pay for their drugs when able to do so, though we are not very strict about the matter, so if a man comes in without any money, even though quite able to pay, we tell him to bring his money when he comes again, and let him have his medicine. This source has yielded only about \$300.

Lastly we sell a considerable amount of *cod liver oil*, *quinine* and other drugs, though never *opium* nor *morphine* in any shape whatever, and from these sales we have received over \$400. To sum up, our income has come to us from the following sources and in the following amounts:—

Contributions from				
Chinese ... ..	...	...	Mex.	\$703.81
Contributions from				
foreigners ... ..	...	...	...	353.66
Received from daily				
patients and out-calls ...	...	...	...	296.16
Sales ... ..	...	...	...	410.72
				<u>\$1,764.35</u>

Our total attendance is twelve to fourteen thousand a year.

Truly yours,

JAMES BOYD NEAL.

SHAO-HING, CHINA, {
June 18th, 1904. }

MY DEAR DR. JEFFERYS: I am glad there is to be a meeting of the Association so soon, *What makes* and certainly expect *"an Outfit"?* to attend. A call for topics for discussion was issued, so I venture to express my need. In preparing for my work at home I wrote diligently to every available source, hut was unable to get any information specifically as to medicinal outfit and drugs to bring with me. Even now, in contemplating the opening of a dispensary, I am somewhat at a loss to know what drugs and *in what quantities* I

should send for and where to buy. This question quite probably would hardly be profitable for discussion at the meetings and of course needs would differ with places and with individuals, but I feel sure that new missionaries coming to open a new work would find great help in a simple list of the most needed surgical instruments and hospital supplies, and particularly a list of the drugs and quantities of each that will enable him to handle any ordinary case that might turn up during the very beginning of his work. Reports of many methods of conducting hospitals, especially on their financial and evangelical sides, have appeared here and there, and it occurs to me that a collection of such hints would be extremely interesting and useful. If it seems that this matter had better be done outside of the associational meetings, I would be very glad of any hints or references you can give, and may ask permission to look over the back files of the JOURNAL some time.

Very sincerely yours,
F. W. GODDARD.

CHANG-TEH, HUNAN, }
June 22nd, 1904. }

DEAR DOCTOR: Owing to the fact that the egg of the ankylostomum duodenale often escapes the eye in the unstained specimen, especially if the illumination is too great or the specimen poorly spread, I have been trying for some time to stain this body, but without success until to-day. I regard my efforts as only partially successful, as I have not been able to make permanent mounts. Perhaps others will carry the process a step farther.

The method I used is as follows: A drop of fecal matter, made semi-liquid by the addition of water, is dropped on a slide. Any lumps that

would prevent a cover-glass from lying flat are removed and a cover glass applied, using moderate pressure to cause an even spreading of the film. The cover glass is next slid off on the plane of the slide. The specimens are allowed to dry in the air and are stained for two minutes in Jenner's stain (I have tried no other stains). The stained specimen is washed, preferably in distilled water, for ten seconds, the excess of water drained off, and before it becomes dry is examined with a low power under moderate pressure which flattens the egg. I use two-thirds objective and one inch eye piece. The field is stained red while the eggs are a light yellow with the delicate shell and the segmented yolk beautifully shown. I hoped to see the same appearance when the slips were mounted in balsam, but the eggs were distorted almost beyond recognition when so mounted.

If the specimen is a little thick it does not matter, as the contrast in the staining of the eggs and the other elements is so great that they will not escape the attention of even a careless observer.

Every year we treat a few of these cases, while others whom we strongly suspect, fail to return with a sample of the stool for examination. This is my purpose to try from now on to induce patients suffering of gastro-intestinal disorders to stay a few days in the hospital where we can examine the stools for the eggs of this small but mighty blood sucker, which no doubt is responsible for a great deal of abdominal distress.

Yours truly,
O. T. LOGAN.

P. S.—Jenner's liquid stain can be bought of Bausch and Lomb Opt. Co., Rochester, N. Y., for 25 cents per ounce, postage extra.

O. T. L.

Hospital Reports.

Medical Missionary Society's Hospital, Canton.

The initiation of a new water supply for the hospital and the erection of the college building brought added duty and responsibility to the physicians who find their time more than filled with the increasing demands of the work as a whole.

In accordance with plans and provisions made by the Society, the new water supply has been carried to completion at an expense less than estimated. With machinery from America, a well 175 feet deep was drilled, sandstone rock being struck forty feet from the surface and continuing to the bottom of the well. An inexhaustible supply of water was secured, almost artesian in character. While potable, the water contains considerable *chloride of sodium*, rendering it unpleasant to the taste, but otherwise this pure water supply is a great boon to the hospital. An areomotor on a fifty-foot tower supplies water to a 3,000 gallon tank placed at an elevation of forty feet, and from this tank the water is distributed throughout the premises.

A hospital storeroom has been established within the past year, in which all supplies are invoiced. Everything from this room is given out on an order signed by one of the physicians. The application of this system has resulted in a considerable saving in current expenditure and made much more convenient the storage and care of hospital bedding, clothing, and general supplies. The faithful service of our native assistants is most commendable and deserves recognition. Any of them might easily establish themselves in a lucrative private

practice if they desired it in preference to their self-denying efforts in hospital service.

During the year the Medical College building has been erected, and is now one of the landmarks of Canton. It is eighty-three feet long by forty-nine feet wide, and seventy-five feet to the top of the observatory, built of brick and the best material throughout, and is well suited to the purposes of the college. The prospectus recently issued gives details of this department of the Society's work. We improve this opportunity of expressing our hearty thanks to those who have aided in establishing the college. While much yet remains to be accomplished, it is an earnest of things to come that special donations to the extent of nearly \$17,000 from local sources only have been made to the college.

LAPAROTOMIES.—A larger number of operations requiring abdominal section have been performed than recorded in any previous year. The ovarian tumors removed varied in size from fifteen pounds to forty-eight pounds, nearly all being multilocular cysts. An extra-uterine fibroid, attached largely to the fundus and weighing fifteen pounds, was removed and a good recovery followed.

One restive patient who had a twenty-eight pound ovarian cyst removed, disagreed entirely with the physicians as to the importance of rest and quiet. On the ninth day after operation, watching her opportunity while the native assistant was temporarily absent, she performed the vanishing act, walking to the hospital landing and taking a boat to Honam across the river, from there making her way

to her home in the country where, we learned some weeks later, the patient was well and strong, having suffered no untoward results. It was partly owing to the wonderful tales told by this patient that another case of ovarian cyst came from the same locality to this hospital, had a thirty-six pound tumor removed, and made a good recovery. This woman and the one operated on for the large fibroid became Christians while at the hospital.

The Hangchow Medical Mission. The annual report of the Hangchow Medical Mission of the C. M. S., under the charge of Drs. Main, Kember and Mr. Morgan, comes to hand. It is as usual well edited and very interesting, and the branches of the work, the opium refuge and the leper home, in addition to the regular hospital, commend it to all who have the welfare of China at heart. Herewith some of the most interesting extracts from an unusually readable report.

DISPENSARY WORK.—In this department our opportunities for relieving pain, curing minor ailments, are numerous; for example, opening abscesses, dressing wounds, extracting teeth, syringing ears, painting throats, etc., but from a purely medical point of view it is not without many drawbacks. The greater number of the diseases met with are of many years' standing and can only be benefited by residence in a hospital; even the best hospital treatment is of no avail for many of the cases we meet in the dispensary. To attempt to cure (as we are often asked to do) a tumour of many years' growth, in a patient who has come many miles to consult us, by examining the swelling, looking at the tongue, feeling both pulses, placing the stethoscope on the chest and prescribing as requested a six

ounce mixture, the first dose of which is expected to start the process of absorption, is to say the least of it unsatisfactory. The dispensary, however, affords splendid opportunities for preaching and overcoming suspicion and prejudice and it acts as a feeder to the hospital.

HOSPITAL WORK.—During the year we treated 1,284 in-patients. This we consider our chief work, and it yields the best results medically and spiritually. Unfortunately we are not able to admit all who seek our aid, and our hearts are often made sad by having to send away the incurable and those whose diseases are beyond operative interference; in not a few cases we are sorry to say caused by the malpractise of native quacks, who are forever pouring drugs, of which they know little, into bodies of which they know less, and constantly running rusty needles into vital organs.

Priests, astrologers, ignorance and superstition are also to blame for much.

LEPER HOSPITAL.—The work amongst the poor lepers is full of interest and encouragement, but it is very sad and often terribly depressing. Their condition, however, is much better since the refuge was removed outside the city; there they have fresh air, their boat, their fishing nets, their vegetable garden, the hills to climb, and are very happy. Although we have been treating lepers for twenty-two years, we do not yet know the cause of the disease and have not found a remedy for it. We cannot say that it is not due in the main to the consumption of decomposing or imperfectly cured fish, because fish is largely eaten by the Chinese and often in a bad condition; salt is dear, and most of the fish is sun-cured, and the climate is hot and

putrefaction is speedy, and we have all the conditions which favour the Hutchinson theory. So far as our experience goes contagion is unknown. The attendants do not contract it, husband and wife very seldom suffer at the same time, and we hardly ever meet with two cases in one family.

Our refuge is not a prison but a happy home; they are allowed to pay visits to their own homes, and friends are allowed to visit them at will.

It is a matter of sincere regret to the Journal as well as the readers that we have no pictures of the Hangchow hospital or its allied works.

Wesleyan Mission Men's Hospital in Hankow.

Two other "Good Samaritans" send us an interesting report of the Wesleyan Hospital, Hankow. This year there has been an increase of 1,200 visits to the dispensary; we have had ninety-one more in-patients, and performed ninety-four more operations.

The steady growth of the work is shown in the following figures:—

	1900.	1901.	1902.	1903.
In-patients. . . .	155	212	299	390
Operations. . . .	98	94	140	234
Dispensary visits	3,016	1,994	2,263	3,460
Visits to homes				38

A great advance has been made in the usual conduct of missionary hospitals in having a fully trained nurse from home to superintend the Chinese nurses; their first hospital sister. In speaking of the advantage of having such a worker the report says: "We cannot but recall the last words our late esteemed Chinese Minister, Rev. Lo Yiu-san, spoke to us on this subject. He had himself been an inmate of our hospital and thoroughly appreciated all the care that was shown him, but he surprised us one day by

saying it would be a good thing when we followed the example of the Roman Catholics. Wishing to draw him out we asked him what he meant, and he replied it would be better to have an English lady nurse in our hospital. Still wishing to get his opinion on this important matter, we urged in succession all the objections we had so frequently heard urged against such a course, but he overruled them all. He said her presence in the wards would keep down all wrong talk and doing, and that nobody would dare say a word against her. 'I am a Chinaman,' he said, 'and I know my people'; however well a Chinese nurse may do his work we cannot help feeling that he does it for pay, but when an English lady leaves her home and comes out here to nurse us, we know she does it for LOVE.' The short time that has elapsed since sister arrived, has confirmed the opinion our Chinese colleague expressed."

The life story of the patients reads like a novel, but it is not too much to say that throughout the mission hospitals in the empire hundreds of equally interesting records could be obtained which are unanswerable arguments for Christian missions.

Case 3.—Li Chia-hsu, thirty-nine years of age, a Buddhist priest for many years, came to us one day suffering from trachoma and bad keratitis. He was in for six weeks and went out with useful vision. He had become a Buddhist priest, as they assured him it would cure his eyesight, and experience had proved the falsity of their pretensions. Whilst in the hospital he became more than interested in the gospel, and as soon as he went out gave evidence that he meant to turn from idols and serve the living God. He gave up his profession and handed his priestly certificate

(which would secure him food and shelter at any Buddhist temple) to Mr. Allan and set about earning an honest living. He is now an enquirer on trial, and so far has proved the genuineness of his professions. We hope to bear of his baptism during the year and bespeak the prayers of our readers on his behalf.

The greatest need of the Mission hospital seem to be a home for incurables.

The need for such a home, which we have pressed again and again in our reports during the past few years, is as great as ever. Cases past all hope of cure still remain with us, and are likely to until they die. Apart altogether from the fact that these cases would be just as well cared for in such a home, there is another very important consideration. These cases take up room in our wards which could be used for other cases. We do not regret that these poor sufferers remain with us. We long for the time when we can care for them in a home of their own, and at the same time have the beds in the wards ready to be occupied by other cases.

In order to erect such an institution as we need, we require about £2,000. Such a building would enable us to accommodate twenty-four patients. To meet the annual expenses, apart from European nurses' salaries, we should need £150 per annum.

Fuhkien. The American Board missionaries in Fuhkien are doing what they can to keep the lamp of medical missions trimmed and burning as reports from six of their stations testify. The same needs confront the medical workers in Fuhkien as they do those in every other section of China that we have yet heard from, summed up

in the four words—more men and more money.

Dr. Whitney's new translation of Gray's Anatomy is now published and will be priceless to those who are teaching medicine in Chinese.

Shao-wu. Dr. E. L. Bliss writes from Shao-wu: During most of the year the superintendence of building, duties as station treasurer and other matters of mission business have not allowed the physician to give more than half his time to the medical work. For this reason that department has suffered greatly in efficiency and influence. That is to be greatly regretted, but while the missionary force at the station is so very inadequate there is seemingly no escape from it.

This diversion of attention has affected chiefly the hospital in-patients, the house visits and the instruction of the five medical students. These are all bright, promising, Christian young men. It is very desirable that more time and attention should be given to their training than is now possible, as it would greatly increase their future usefulness and influence for good among their people. The dispensary has been well attended, there being nearly two thousand more treatments given than there were last year.

The months of August and September were spent in the Ni-shi-tu mountains near Shao-wu. There about one thousand patients were treated, either at our cottage or at their homes. At first thought it seems strange that there should be so many people requiring medical aid in a thinly settled mountainous region, but the greater number of these were cases of severe illness in villages within ten miles of our mountain cottage. Some traveled more than a day's journey and took

lodging near by, that they might receive prolonged treatment. We plan to care for the less important diseases at the dispensary daily, between the hours of 10 a.m. and 1 p.m. and to have the people conform to these hours. It often happens, however, that there are serious cases demanding attention at all hours: messengers come for medicines for people at a distance and must return immediately; patients must be visited at their homes in the city or surrounding villages. Such calls mean far more labor for the physician than the same number treated at the dispensary, and have been recorded separately. Four trips of from three to five days each were made into the country to visit members of Christian families who were critically ill. At such times many others were treated.

Woman's Hospital, Foochow City.

With the increase of outside practice there has also been an increase of hospital patients. 201 have been received during the year. A part of the time the wards have been uncomfortably full. But when crowding is necessary we always know that it does not trouble the Chinese as it does us. They heartily believe "the more the merrier." We have had the satisfaction of seeing a good deal of suffering relieved.

Some patients brought in, in a condition that seemed almost helpless have, after a long period of treatment, made a good recovery and gone home very happy.

THE OUT-PRACTICE, FOOCHOW.

Every year more of the Chinese are willing to try Western medicine, thereby giving us a larger opportunity to relieve physical suffering and to teach a lesson of kindness and love.

Our little dispensary has been open every morning from ten to twelve throughout the year. Those who patronize the clinics are students in our schools, Christians living in the neighborhood, and men and women from the heathen city that surrounds us. We have been gratified to note a steady increase in the number of non-Christian patients. Some of our most satisfactory surgical cases have come from this class, as the heathen with their fears and superstitions show remarkable faith and willingness to return for repeated treatments, thus making it possible for us to do better work. The hospital evangelist is present each morning at the dispensary, and in many little ways helps to gain the confidence and respect of new patients.

This year there have been nine difficult obstetrical operations, four of which were craniotomies, four deliveries of badly neglected transverse presentations, and one a removal of an extrauterine foetus of seven months' development through a spontaneous opening in the abdominal wall. The majority of our maternity cases are abnormal. Both for the instruction of the students who go out from us and for the sake of suffering Chinese women we very much desire an opportunity to develop this department of hospital work.

On Wednesdays and Fridays part of our time has been given to dispensing at the chapels of the city station. Clinics have been held on Wednesdays with considerable regularity at four places inside or very near the city, and on Fridays we have made all day trips outside the city to the villages scattered over the plain. Every country chapel has been visited at least once and the greater number three or four times. The object of these clinics has been three-fold: first, to arouse an interest among Chinese

who have not yet heard of Christianity; second, to teach silent lessons to those of our Christians who know nothing of our methods of treating the sick and who therefore are afraid to trust us; and third, to accommodate other Christians who may have learned to prefer Western medicine but who live so far away that they cannot often come to the hospital or ask us to go to their homes.

Po-na-sang Men's Hospital.

After Chinese New Year, February, 1903, Dr. Kinnear was able to re-open the dispensary. From the first the attendance was good; there being quite as much work as could be well done with untrained help. The absence of many appliances and conveniences in the dispensary and operating room was a constant reminder of the looting which had occurred, and made it impossible to do some of the more serious operations which would have been undertaken without hesitation before the fire. The building was not worth extensive repairs, but windows and doors were fitted to two wards, and when these were full the patients erected shelters for their beds, from anything they could find in two other wards, but they frequently complained that the ventilation was too good. While enduring these many inconveniences there has been much to compensate in the progress made during the year toward getting a new plant for the work.

Upon that part of the new hospital site which has already been purchased there are two Chinese buildings, one of which has been used for church services while the new Dudley Memorial Church has been building. As the Mission has other use for the land upon which the old hospital is standing, it must be torn down, and so these old Chinese

houses, which would be suitable for cattle sheds in warm weather, must now become the home of the Po-na-sang medical work until proper buildings can be provided.

The money for these buildings must all come from those who are especially interested in relieving the suffering of their fellow-men. But the very importance of such a work persuades us that the time will not be far distant when sufficient funds will be in hand to warrant us in commencing to build a suitable hospital.

Po-na-sang hospital has the pleasure of acknowledging the receipt of a donation from a little society of Junior Endeavors at Marsovan Turkey, by the hand of Miss Marjorie Carrington. Commerce is binding the extremes of the world together; so is mission work.

Chang-loh. Dr. Whitney writes: Dr. Ciong has continued the dispensary work the same as in previous years, seeing patients at all times at the dispensary, going to homes wherever called and dispensing at several out-stations occasionally. Several thousand have thus been treated and quite a number of homes visited where the friends of the patients could have an opportunity to see the methods of treatment and the effects of Western medicine and in some cases at least produce a favorable impression for Christianity.

The opportunities are many and ought to be improved, but we can only repeat what we have said for several years that only lack of means prevents us from accomplishing fully five times what we can under the present conditions. The reiterated call for \$2,000 to enable us to live and build up a medical work at Chang-loh city still remains to be answered by the home friends.

Ing-hok Dispensary and Hospital, 1903.

In February the dispensary closed its first year, since the coming of the new missionaries.

More than 1,300 cases, new and old, were treated, including the results of two trips to Gak-liang and sixteen cases seen in their homes.

Last year one woman who was able to lie up, was taken as an in-patient, occupying the school girls sick-room.

For two years the girls school has borrowed the use of the hospital building, reserving three small rooms for dispensary. This year two larger rooms have also been reserved, to be used for taking in a few in-patients. In less than a month six patients have come in, glad of the opportunity, and a beginning has been made. It is a small beginning, but is surely proving itself worth while.

With this arrangement, both girls school and hospital are very much crowded, but neither can afford to give up. We are holding on, hoping and praying that funds from home may come speedily to provide land and building for the girls school that no department of the work may suffer.

Woman's Medical Work, Shao-wu.

The medical work of the W. B. M. I.

in Shao-wu is located within the city, near the North Gate. The new dispensary was finished the first of the year. During the previous year patients were seen in an old Chinese house, afterward used for the girls school, when a woodshed was first built, back of what was intended for the dispensary, and used as a dispensary for several months, till one room of the new dispensary could be finished off suitable for use.

The usual order of dispensing is in the forenoons, leaving the afternoons for attending calls at patients'

homes, either in the city or in the neighboring villages that could be reached in a half day. In the dispensary a Bible woman talks to the waiting women until enough have gathered, when a short service is held, consisting of reading a portion of Scripture, explaining it, offering prayer and singing a hymn with the use of the "baby" organ.

The first part of the year Dr. Bement spent several weeks visiting quite a number of the out-stations, travelling almost daily from daylight until dark, going as far as two coolies could carry her and walking what she could besides. The Shao-wu field embraces magnificent distances and the doctor compassed about six hundred and sixty miles. While travelling the doctor had at times to put up at dark dingy places and sleep in lofts, compared to which a loft in a home barn would be a luxury, or when these could not be secured, a still worse ground floor room had to be used, infested as such places usually are with the numerous little "animals" so common in Chinese houses. These are not the delights of touring in China, but have to be endured. Travelling in the newer regions always brings together crowds of people curious to see the foreigner, and particularly a lady, so the doctor met with the usual experiences of the "tourist," but it afforded her good opportunities to see and learn and do much "pioneer" good. In the autumn the doctor spent several weeks in the girls school, during her sister's illness, and also superintended the workmen building the new Elizabeth Sheldon Lombard Girls School.

Notwithstanding the numerous interruptions and diversions, the average monthly dispensing was larger than usual, and the six thousand treatments, of new and returned patients, are more than in any previous year.

Personal Record.

MARRIAGE.

At Shanghai, September 21st, S. H. CARR, M.D., Kai-feng-fu, and Miss S. EMMIE MORRIS, both of C. I. M.

DEATH.

At Macao, September 4th, J. MAUDE GEORGE, M.D., Am. Ref. Ch. M., Tak-hing-chow.

DEPARTURES.

June 8th, Dr. R. B. EWAN, M.D., and family, C. M. M., West China, for U. S. A.; Dr. W. E. MACKLIN and family, F. C. M., for U. S. A.

July 13th, Dr. MARY BURNHAM, A. P. M., for U. S. A.

July 16th, Dr. W. H. JEFFERYS and family, A. C. M., for U. S. A.

August 23rd, Dr. R. E. BEEBE, Northern Methodist Mission, Nanking, for U. S. A.

September 7th, GEO. E. DEVOL, M.D., wife and child, A. F. M., Lu-ho, for U. S. A.

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TO

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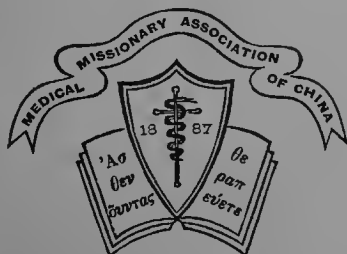
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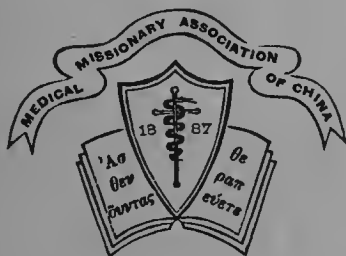
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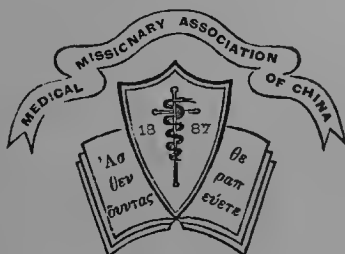
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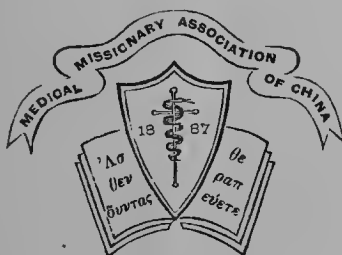
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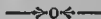
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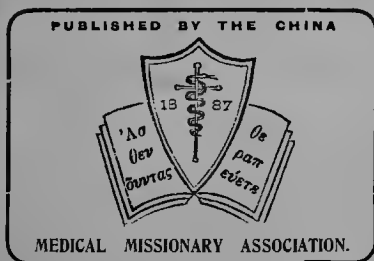
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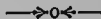
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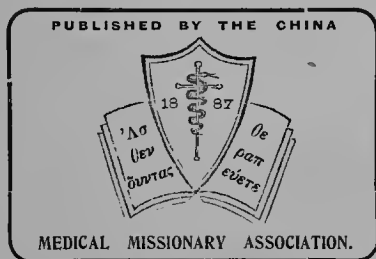
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Business Office, 18 Peking Road, Shanghai.
Editorial Office, 4B Minghong Road, Shanghai.

J EYES' FLUID.

THE best and cheapest Disinfectant. The only Disinfectant Compound sanctioned for use on Emigrant and Passenger Ships. Sanctioned by H. M. Board of Trade and H. M. Government of India. Is a far more powerful Disinfectant than Carbolic Acid, and **NON-POISONOUS**. Invaluable in Hot Climates, on account of its cooling and healing properties in cases of Prickly Heat, Leprosy, Mange, and other Skin Diseases.

J EYES'

TOOTH
POWDER.

TOOTH
PASTE.

DENTIFRICE
WATER.

Household (White) and Disinfectant (Brown) Soaps.

The most perfect cleansing Soap. Destroys Vermin, and is
an efficient wood preserver.

In 1-lb. and 3-lb. Bars.

TRIPLE MILED TOILET SOAPS.

All containing the Antiseptic Properties of Jeyes' Fluid.

- "PERFECT PURIFIER," in Boxes containing 6 Tablets.
- "OLD BROWN WINDSOR," in Boxes containing One Dozen Tablets.
- "TOILET" (Scented), in Boxes containing 6 Tablets.
- "SUBLIME TOILET" (Unscented), in Boxes containing 6 Tablets.
- "SUBLIME TOILET" (Scented), in Boxes containing 6 Tablets.
- "BOUDOIR TABLETS" (Perfumed), in Boxes containing 3 Tablets.

SANITARY POWDER

Is the strongest and most efficacious preparation of the kind sold.

In Canisters, Casks or Bags.

DISINFECTANT SAWDUST

In $\frac{1}{2}$ -cwt. Bags.



LANO-CREOLINE,

CREOLINE GAUZE,

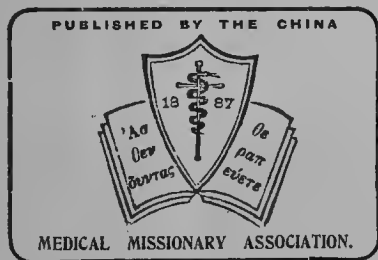
SURGICAL SOAP 10%

Sole Agents for China—

J. LLEWELLYN & CO., LIM.

JULY, 1904.

The China Medical Missionary Journal.



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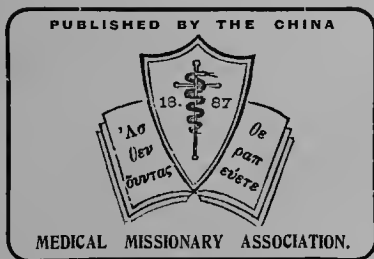




OCTOBER, 1904.



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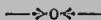
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